Wildcat! 4

WILDCAT!
Sysop Guide

Wildcat

Sysop Guide

(03/31/95 printing)

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Colophon

This manual was written, edited and composed in Microsoft Word for Windows version 6. Final 600 dpi camera-ready pages were printed on a Hewlett Packard Laserjet 4. The body text is set in 10 point Futura Light, with headings in Contemporary Brush.

The Futura family of typefaces was designed in 1929 by Paul Renner. Its geometric forms are characteristic of the Art Deco style of the 1920s. Its readability and pleasant proportions have earned this classic modern typeface an enduring popularity.

Contemporary Brush is a hand-lettered font designed for the pioneering 1950s phototypesetting library Filmotype, possibly by Tommy Thompson. This TrueType version of the 1950s original has an easy-going but dignified style, providing an attractive yet unobtrusive emphasis to headings.

Acknowledgments

Our special thanks go out to everyone who participated in the development of *Wildcat!* Version 4. We could not have met our goals without the help of our alpha test team, beta test team, copy editors and all the Sysops who called in during the test phase.

Our sincerest thanks to everyone who had a hand in making *Wildcat!* 4 a success. We appreciate your efforts.

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About the manual

This manual describes *Wildcat!* BBS operation and features at the time of publication, and does not reflect changes made to the program after the manual was completed. Be sure to check the README.WC4 file on your *Wildcat!* BBS installation disks. This file contains important information about last-minute changes in the program, additional features, and errors or omissions in the manual.

Typographic Conventions

The following type styles are used throughout this manual to represent keys you press and information you type. Note the difference in appearance between a Zero "0" and the uppercase Oh "O".

Displayed	What this means and what you should do
[ENTER]	The key you should press.
[ALT] [Z]	In this case hold down the [ALT] key, then press the indicated key.
`CD \WILDCAT`	A DOS command to type exactly as shown. Remember to press your [ENTER] key after each line.
Click	A single press of the left mouse button.
Double Click	Two rapid clicks of the left mouse button.

Customer Access

Mustang Software, Inc. strongly believes in providing quality software at a reasonable price. We back our products with technical help when our registered users need it. Please send in your registration card to enroll in our technical support plan.

Until we receive your registration information, our staff cannot provide you with technical support through our BBS or by phone.

Benefits of sending your registration

- Free technical support by phone Monday through Friday between 9 a.m. and 5 p.m. Pacific time
- Automatic notification of major program updates
- Additional program updates at a reduced rate
- 24-hour access to the private multiline Registered User's HQ BBS at Mustang Software
- BBS access to download utility programs written by MSI staff and other authors which enhance and add features

Technical Support Services

Wildcat! BBS is designed to be easy to use, and this manual should contain the answers to most of your questions. Read it first. Make use of the F1 help key for tips and explanations. If you're still stumped, technical support is only a phone call away.

MSI HQ! BBS

You may first want to call our private *Wildcat!* BBS for Registered Users at 805-873-2400, and leave a quick question for our technical staff. This is a particularly useful way to receive expert guidance with the more advanced features.

On-line services

CompuServe

Another alternative is CompuServe where we are a part of the PC Vendor Support Forum. You reach us by typing GO PCVENA and then selecting Subtopic 9.

GEnie

You can also find us on GEnie, the on-line service from General Electric. Go to the MUSTANG Round Table with the command MOVE 680.

America On-line

MSI's support section on America On-line is called MUSTANG and can be reached with the keyword MUSTANG.

Internet

Our Internet mailing address for tech support is support@mustang.com.

Voice support

If you are still unable to find the answer to a question—or if you need a quick explanation, please call us Monday to Friday between 9 a.m. and 5 p.m. Pacific time.

When calling for support please:

- Have your registration number handy which is bound inside your *Wildcat!* manual.
- Record your Registration number here:
- _____
- Be at your computer with your manual handy.
- Be ready to describe the problem in detail.
- If possible, be ready to duplicate the problem on your system.
- You can call technical support directly at (805) 873-2550.

MSI SupportNET

We also have a large number of BBS systems carrying the MSI SupportNET echo conferences throughout the US and Canada, and around the world. These BBSs are located in Australia, the United Kingdom, France, and Norway. The MSI SupportNET contact points outside the US are:

Location	Distributor	BBS Phone
Australia	Banksia Info. Tech.	+61 2-418-7693
France	Maxotex	+33 1-45-34-6430
Scandinavia	PC Security	+47 2-58-3358
United Kingdom	Telesystems	+44 49-489-1903

You can download a list of MSI SupportNET BBSs in the U.S. from the MSI HQ BBS.

Questions Other Than Technical Support

If you have questions related to shipping or other areas handled by our office staff you should contact us at 805-873-2500. Our office staff can help with changes to your registration information and handle all non-support questions regarding our product line.

We also have a toll-free number for questions regarding new product purchases or updates you can call 1-800-999-9619, Monday to Friday, 8:30am to 5:30pm Pacific time. Our mailing address is Mustang Software, Inc., PO Box 2264, Bakersfield, CA 93303.

Software Updates

Wildcat! BBS is constantly undergoing enhancements and revisions. This is normal software maintenance. We encourage you to keep your software updated—we can provide the best support to users who are running the current major release. The cost is minimal and the benefits are great.

Where to find more information

No single manual can tell you everything you need to know about computers and modem communications. There are many additional sources of information, assistance, training and help. We hope you find the following list of resources useful.

Publications

If you're interested in learning more about modem communications and the on-line community, we recommend the following publications:

Books

- *Guide to PC Telecommunications, 2nd edition*, by John Dvorak and Nick Anis (1992, McGraw Hill, ISBN 0-07-991787-0). Over 1000 pages of information on communications, BBSs, on-line services, and more. Readable and entertaining, this book has lots of technical information for the non-technical caller.
- *Using Computer Bulletin Boards, 3rd edition*, by John V. Hedtke (1992, MIS: Press, ISBN 1-55828-391-9). This book explains in easy to understand terms how to log on to a BBS, how to read and answer e-mail messages, how to transfer files, and much more. Ideal for the beginner who wants practical, non-technical information. Call 800-247-3912 to order. Quantity discounts are available for Sysops who would like to resell this book to their callers. For more information, call 212-886-9261.
- *SysLaw, 2nd edition*, by Lance Rose and Jonathan Wallace (1992, LOL Productions c/o PC Information Group, Inc., 1126 East Broadway, Winona, MN 55987). Useful reading for BBS operators, with clear explanations of your rights and responsibilities as a BBS operator, how to establish "ground rules" for caller conduct, and legislation pertaining to computers, telecommunications and Bulletin Board Systems.

- *Modems for Dummies*, by Tina Rathbone (1993, IDG Books Worldwide). Lighthearted but informative introduction to modems and telecommunications, aimed at the beginning user. Much useful information and plenty of entertaining tidbits. Part of a series of "dummies" books including *Windows, DOS, PCs, Internet* and more. New titles appearing all the time.

Magazines

- *Boardwatch*, published monthly by Jack Rickard. Call 1-800-933-6038 for subscription information. Witty, well written, sometimes opinionated overview of BBS issues. Many good BBS lists, by region and theme.

User Groups and Organizations

Most cities and towns have a PC User Group. Many also have a local System Operators association. These groups serve the non-professional computer user by providing social and educational meetings, special interest groups, informal classes for beginners, and guest speakers from the computer industry.

Your local computer store or public library can provide information on PC User Groups in your area. If you work for a large corporation or government agency, your employer may also sponsor a PC User Group — ask your PC support people for more information.

The electronic community

The electronic community is no different from any other group of people with similar interests — people naturally like to get together to share their knowledge and experiences. By getting in touch with other people electronically, you can find people who know a little or a lot about anything you've ever heard of.

Initially, the electronic community is a good place to learn more about computers, modems, and telecommunications. You will soon find, how-

ever, that there are many more things to discuss on-line than just computers.

Your PC, modem, and communications software give you the chance to meet people far beyond your own physical community.

Bulletin Board Systems (BBS)

The on-line community is as close as your nearest Bulletin Board System. Most Bulletin Board Sysops are friendly, and welcome the opportunity to share their knowledge and expertise. To help you locate other BBSs in your area, MSI maintains a worldwide *Wildcat!* BBS listing. Download WCLIST.TXT from the MSI HQ! BBS, or visit the *wcLIST* menu to search for BBSs that might interest you.

Commercial on-line services

Besides the Bulletin Board Systems in your area, there are several national and international commercial on-line services. Your *Wildcat!* BBS package may contain information on how to subscribe to one or more of these on-line services.

1 - Installation Guide

The nice thing about quotes is that they give us a nodding acquaintance with the originator which is often socially impressive.

Kenneth Williams

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New users start here

First, BACK UP your entire system! Do not perform this installation without making a complete backup of everything on your hard disk(s). If you have not been making regular backups, consult your DOS manual for instructions, or obtain third-party backup software for this purpose. This procedure is recommended in the unlikely event something goes wrong during the installation.

System requirements

This is the minimum configuration your system should have to set up a single line BBS with *Wildcat!*:

- IBM 80286 (AT Class) and higher, or true compatible.
- High density 5¼" (1.2mb) floppy disk drive *or* high density 3½" (1.44mb) floppy disk drive (for installation from master diskettes).
- DOS version 3.3 or higher. Other operating environments such as DESQview may be used, see Chapter 7, *Multiline setup*.
- Hard disk drive, with a minimum of 15 megabytes of free space. This is sufficient for the *Wildcat!* program and support files only — in full operation the BBS can and will use *much* more disk space!
- 640k minimum RAM, with at least 400k of DOS memory available for *Wildcat!*
- 80 column monochrome or color monitor.
- Asynchronous communications (serial port) adapter
- RS-232 cable with the at least the standard 9 pins connected. Some modem cables do *not* have all of the pins hooked up.
- Intelligent AT command set modem.
- Voice grade telephone connection for modem.
- Modular telephone cable from outlet to modem.

Multiline note

A wide variety of configurations are possible for multiline systems, each with their own issues to consider. We'll talk more about multiline system requirements later on in this Sysop Guide. For now, you should concentrate on getting a single line BBS installed and operating.

Skills you need

We assume you have a basic understanding of DOS: how to create and use subdirectories, and how to use a text editor to create and modify your AUTOEXEC.BAT, CONFIG.SYS and CAT.BAT files. You may want to review your DOS manuals, or consult a knowledgeable friend or co-worker if you need help acquiring these skills.

As part of normal BBS operation, you will need to make regular use of a text editor. You may use EDLIN or EDIT, which are supplied with DOS, a word processor that can save files in "DOS TEXT" or "ASCII" mode, or you can use a shareware text editor such as QEdit from Semware. This excellent shareware editor is available for download from MSI HQ and many other fine Bulletin Board Systems.

You may also need to open your PC's case to configure and install modem or serial port cards. If you prefer, you may refer service to a qualified professional. As with all electronic equipment, to avoid injury to yourself and damage to the components in your PC, ***always turn your PC off and disconnect the power cord before opening the case,*** and follow the instructions supplied with your hardware for safe installation and removal of components.

Configuring your system for *Wildcat!*

Before beginning the actual program installation, please take a few moments to create a DOS environment which will provide the memory and resources *Wildcat!* needs to operate correctly.

The first step is to view and edit your system configuration files CONFIG.SYS and AUTOEXEC.BAT. You will normally find these files in the root directory (C:\) of your hard drive.

CONFIG.SYS

The first file you need to edit (or create, if it does not exist) is the system configuration file, called CONFIG.SYS, located in the root directory of drive C:. This file installs and configures your DOS environment: device drivers, memory management commands and system settings such as "File handles".

File Handles

File handles are blocks of memory used by DOS to store information about the name, size and location of a file being used by a computer program. DOS itself provides only a limited number of file handles, so we need to increase this default value. If a program such as *Wildcat!* cannot open all the files it needs, it may "crash" and exit with an error message.

The recommended number of file handles for a single-line *Wildcat!* installation is 40. Keep in mind that multiline operation on local area networks or in operating environments such as DESQview or Windows may need many more handles.

Your CONFIG.SYS file should contain this command:

```
FILES = 40
```

This allows applications to open as many as 40 files simultaneously. You can set this number higher if you need to — the amount of additional DOS memory used is minimal.

ANSI.SYS

Wildcat! contains a built-in color driver, so the ANSI.SYS device driver is not required to run in color mode. Other programs may require the ANSI driver, however. If your CONFIG.SYS already installs the ANSI driver, you may leave it in place.

AUTOEXEC.BAT

The next file to edit is your AUTOEXEC.BAT file. Once again, this file is located in the root directory of Drive C:. This file is a group of commands that are automatically executed when you start up your computer.

As a minimum your AUTOEXEC.BAT file should contain the following lines:

```
PROMPT $P$G
PATH = C:\;C:\WILDCAT
```

The PROMPT command changes the default DOS prompt, which shows the current drive letter only, into a more informative display which shows the current drive and directory.

The PATH command tells DOS what directories to search for programs. Without this command, if you try to execute a program that is not in the current directory, DOS will say

```
Bad command or file name
```

You may include additional directories in this PATH statement, for instance the directory where your DOS files are installed. Review your DOS manual for more information on the CONFIG.SYS and AUTOEXEC.BAT files, along with general information on file handles, paths, and commands.

Later on, we'll talk about how to start *Wildcat!* automatically from AUTOEXEC.BAT.

wINSTALL

Wildcat! comes with an installation program that automatically creates the necessary directories, and copies the program and support files you select to the correct location. You cannot install *Wildcat!* simply by copying the files from the installation diskettes to your hard drive since the files are stored in compressed format.

You can use the installation program for an initial installation, or to re-install your *Wildcat!* software. Before you begin installing *Wildcat!*, we

strongly recommend that you make a backup copy of the installation diskettes and keep them in a safe place. Review your DOS manual for help if you are unsure how to make backup copies of your diskettes.

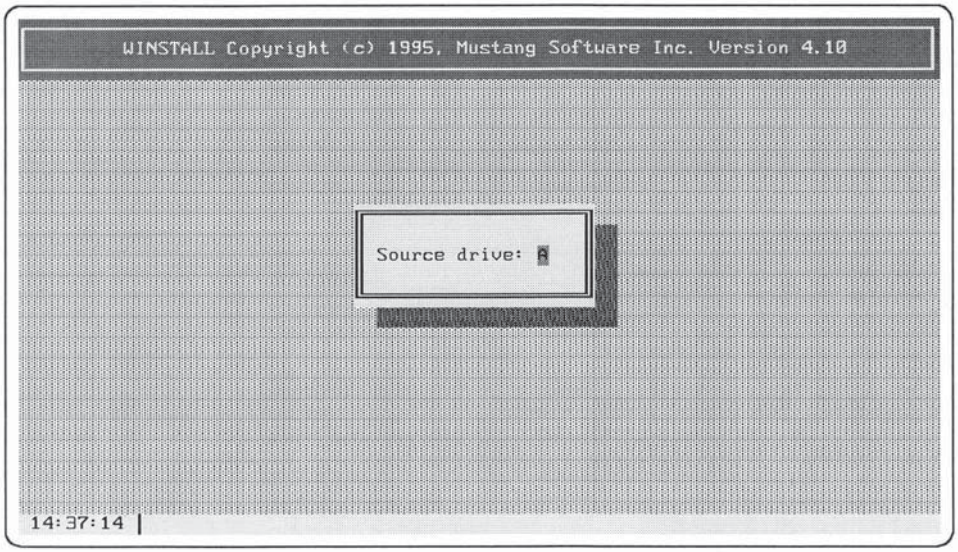
To install *Wildcat!*, place the disk labeled "INSTALL" in your floppy drive and type

A: ENTER

If you are installing from a different drive, enter the proper drive letter. Then type

WINSTALL ENTER

Your screen should now look something like this:



Source Drive is the drive letter from which you will be installing *Wildcat!*. If you are installing from diskettes in floppy drive A:, enter A in this box. If

you are installing from drive B:, enter B, and so on. Press ENTER to continue.

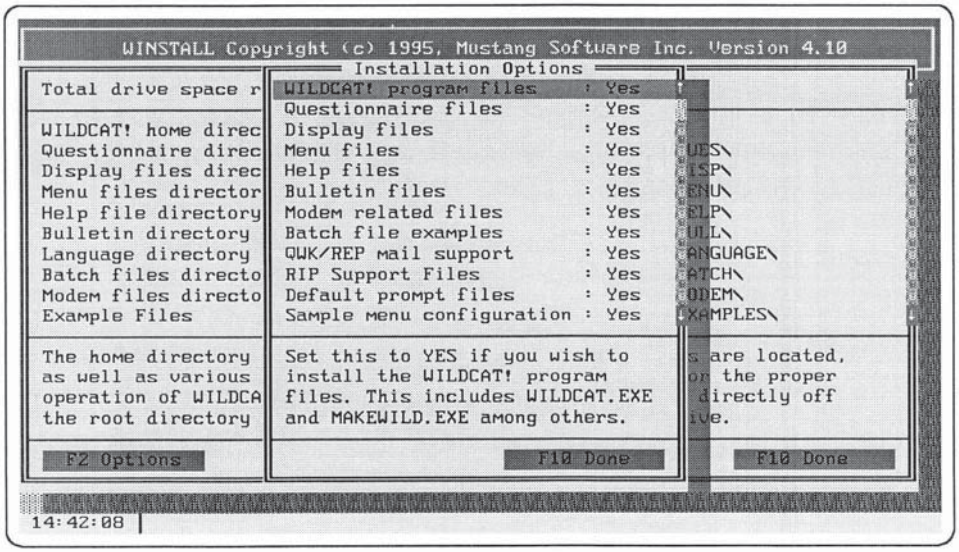
The next screen will show you the amount of drive space required for the installation, and allows you to select which files you want to install at this time. A help window provides additional information about the files you are selecting.

```
WINSTALL Copyright (c) 1995, Mustang Software Inc. Version 4.10
                    WILDCAT! v4 Installation
Total drive space required for install     :  20,176,896

WILDCAT! home directory                    : C:\WILDCAT\
Questionnaire directory                    : C:\WILDCAT\QUES\
Display files directory                    : C:\WILDCAT\DISP\
Menu files directory                       : C:\WILDCAT\MENU\
Help file directory                        : C:\WILDCAT\HELP\
Bulletin directory                         : C:\WILDCAT\BULL\
Language directory                         : C:\WILDCAT\LANGUAGE\
Batch files directory                      : C:\WILDCAT\BATCH\
Modem files directory                      : C:\WILDCAT\MODEM\
Example Files                              : C:\WILDCAT\EXAMPLES\

The home directory is where the WILDCAT! executable files are located,
as well as various configuration .DAT files neccessary for the proper
operation of WILDCAT!. This directory is usually located directly off
the root directory of your 'C' drive or other Network drive.

F2 Options                                          F10 Done

14:38:26
```

The correct place to install all *Wildcat!* Program files is your *Wildcat!* home directory. The default directory is C:\WILDCAT\. The installation program will create this directory for you if it does not exist. If you prefer to install *Wildcat!* on a different drive or subdirectory, enter the correct information here.

The default installation installs *all* program and support files, and this is the recommended procedure for a first-time installation. Press F2 to see installation options for each set of files. As with the previous window, the Installation Options screen explains each option. Use your ↑ and ↓ keys to

move the selection bar up and down the list, and press ENTER to change each option. Notice how the help information changes as you move the selection bar.



When you have finished selecting installation options, press F10 to return to the main installation screen. Press F10 again to begin the installation.

The installation process will copy the program files to your *Wildcat!* home directory, and will create any required subdirectories for configuration and support files. The paths created are the proper location for configuration and support files, and shouldn't be altered.

The installation program may ask you to insert additional diskettes to complete the installation process. Each original diskette is clearly labeled. The installation program will display additional screens of tips and information while the *Wildcat!* files are being copied to your hard drive.

In some cases, changes may have been made to the program after the manuals were printed. The final screen displayed by the installation pro-

gram shows you important information on last-minute changes to the program or documentation. You have the option to print this file right now. We recommend you do so, and keep the printed copy with your *Wildcat!* Sysop Guide for future reference.

What to do if you have problems installing *Wildcat!*

wINSTALL creates a detailed log file called WINSTALL.LOG, listing its activity during the installation process. You can find this log file in the root directory of the drive on which you installed *Wildcat!*, for instance C:\WINSTALL.LOG.

If while installing *Wildcat!* you experience problems, here are some quick things to check before calling for Technical Support.

First, make sure you are installing *Wildcat!* from DOS. If you are using Windows then exit Windows completely before beginning the installation. Running the install program from a DOS window may cause problems.

If you are running DESQview then close all DESQview windows before installation as this will ensure that no other program running at the same time can cause any installation problems.

If you think you may have bad diskettes, try to use the other set of media. *Wildcat!* includes diskettes on both 5¼" and 3½" diskettes. It is unusual for both sets of diskettes to be defective. If you are still having media problems, you might try installing on a different machine.

If, after trying these tips you are still having difficulty installing *Wildcat!*, or if you're just unsure about the installation process, refer to the section **Customer Access** on how to receive support for *Wildcat!*.

Quick Start

Or . . . "Out of the box and on the air in 1 hour or less"

The *Wildcat!* BBS comes pre-configured for the most common system settings and preferences, and if you are anxious to try out your new BBS software, you may prefer to leave these settings as-is.

If you have all the hardware and software you need, and if all goes well with the installation and configuration of your modem, it is possible to have a single line *Wildcat!* BBS up and running using the pre-configured settings, in as little as one hour.

Please keep in mind that these preconfigured defaults may not be correct for the way you plan to use your BBS. Before you open up your BBS to the public, your staff or your customers, you really should spend some time customizing it. The things that give your system a personality: message and file areas, user access profiles, display files, menus, prompts, and bulletins, can all be easily modified.

However, you can always go back and make those changes later on. If you are in a hurry to get your BBS "on the air" then follow these steps:

1. Install *Wildcat!* using the default settings specified in *wINSTALL*. Answer "Yes" to all options to perform a full installation.
2. Install your modem according to the manufacturer's instructions, and connect it to the telephone outlet. The simplest installation is to put your modem on COM port 1 or 2.
3. Change to your *Wildcat!* home directory (normally C:\WILDCAT), and type `MAKEWILD` [ENTER]
4. Under "General Information", fill in your Sysop name, BBS name and registration number (printed on the card bound inside the cover of this manual).

5. Under "Modem Settings", select the communication port number for which your modem is configured. Under "Type of Modem", press [F3] to select your modem from the list of pre-configured modem files.

6. Press [ESC] to exit *MAKEWILD*. Answer "All" to the "Create paths" prompt, to create the remaining paths for messages, files, and other information.

7. At the DOS prompt, type `WILDCAT` [ENTER].

8. You should log in locally ([ALT] [L]) now, to take a look at the BBS from the user's point of view. Use the [F9] key to change your security to "SYSOP", and look at each menu as the caller would see it. When you have finished looking around, log off and call your BBS from another PC and modem, or have a friend call and test it for you.

If all went well, your BBS will now have logged its first call. Press [F10] to exit from *Wildcat!* and spend some time becoming familiar with this Sysop Guide.

Upgrading to Wildcat! 4

This section covers upgrades from *Wildcat!* Test-Drive, v2.x and v3.x.

The new program you have in your hands represents not only the efforts of the *Wildcat!* 4 development team over the last 24 months, it also embodies the combined experience of thousands of Sysops who helped us tool this latest version of *The World's Most Popular BBS Software!*

The changes are significant. Many changes had to wait for this major update in order to be implemented because they needed to be added along with a major structure change. In all there are over 200 operational differences in this release. We sincerely hope you find *Wildcat!* 4 a major step in the evolution of BBS software.

Before you get started with your upgrade (are you anxious?), please read this entire section. Because of the extraordinary scope of program additions in *Wildcat!* 4, there will be a number of items that can't be converted automatically. In addition, we didn't want to make assumptions about how YOU wanted YOUR system to look in its new attire. We felt the best alternative was to guide you to those areas and allow you to make the changes that reflect your personal preferences. Unfortunately, because of the added flexibility there are a number of these areas for you to review after the conversion. We apologize for the inconvenience this conversion effort may cause, but we feel confident that the added functionality of *Wildcat!* 4 will leave you feeling it was all worthwhile.

First, the legalities.

Users upgrading from a prior, registered version may not sell or otherwise transfer rights or ownership of a previous registered program. Consult the License Agreement in the front section of this manual or call Mustang Software if you have any questions in this regard.

Get Mentally And Physically Prepared

The upgrade process is not totally automatic and will require Sysop time and intervention. The conversion process alone may take several hours, or

even overnight on systems with a large number of files, users and message conferences. Do not begin the conversion process until you have read this entire section and are prepared to spend time working on the details of the upgrade after the conversion is completed. Your BBS will be down during much of the process.

To begin with, you should BACK UP your entire system! Do not attempt to upgrade without making a complete backup of everything on your hard disks. As Sysops you all know how Murphy's Law works against us. It will strike you when you are most vulnerable. Back it up!

If you have not been making regular backups, refer to your DOS manual for instructions on how to use the BACKUP program. Alternatively there are many third-party backup programs you can use for this purpose. Performing one of these procedures is highly recommended in the unlikely event that something goes wrong during the upgrade process.

During the upgrade process your old files will be preserved *if there is enough disk space*, but you may be prompted to let the upgrade program delete them if you do not have enough room for two copies.

Finish reading this entire section before performing ANY installation or upgrade activities!

Before you run *wUPGRADE* you must have completed the installation of *Wildcat!* 4 by following the instructions for the *wINSTALL* program in the *Wildcat!* manual. You must install your new *Wildcat!* 4 to a different directory than your old version. We recommend the default of C:\WILDCAT.

When you have completed installing version 4 you should NOT run *MAKEWILD* or any of the new version 4 programs just yet. First review the manual to familiarize yourself with all the new features, especially Chapter 2, *Inside Wildcat!* Only after this should you proceed to upgrade and convert your existing BBS, using the program *wUPGRADE*.

wUPGRADE

If you are upgrading from a previous version of *Wildcat!*, you can convert most of your existing system information, user, files and message databases as well as some of your configuration data.

BEFORE starting the conversion, take a few moments to do some preliminary work to make your upgrade easier. After all, since you have to run a conversion; you may as well make it as painless and quick as possible. Do not run *wUPGRADE* until you have finished reading this section!

First, run *wcREPAIR* on all databases: users, files and *all* message conferences. This will ensure that they are in perfect condition for the upgrade process. Clean up as much of your existing system as possible. If you have *wcPRO*, consider deleting all messages over ## days old, or all received private mail. Trimming your conference messages and attachments can speed the conversion process. The file database should also be checked to ensure that all entries are valid and current.

The program *wUPGRADE*, located in your new home directory, is designed to convert as much information as possible. In almost all cases this program will duplicate the structures it finds for the existing system.

To get started with *wUPGRADE*, change to the directory where you want the version 4 structures created. This is the directory where you installed your new *Wildcat!* 4 and is C:\WILDCAT by default.

You must run *wUPGRADE* from your new *Wildcat!* Home directory and no other location. The first thing that *wUPGRADE* will check is the current directory. If this is not the directory where you installed your new *Wildcat!* 4 programs then exit *wUPGRADE*, change to the correct directory and start again.

If you installed the complete *Wildcat!* 4 including the sample configuration files, *wUPGRADE* will tell you there is already a *Wildcat!* 4 configuration in this directory. Since the files it located are only sample files provided by the installation program, answer **Yes** to overwrite them.

After the introductory screens in *wUPGRADE*, you will be asked where your old *Wildcat!* system is. Select the appropriate home directory for your *Wildcat!* 3 system and press OK.

At this point your old configuration will be scanned to see if there is enough disk space to upgrade without removing any of the old files. If there is enough space, *wUPGRADE* will go ahead and do the upgrade without removing any old files.

The User, Files, and Message databases will be converted, and updated copies will be created in a directory with the same name as your old system, but below your new home directory. Prior to converting each database *wUPGRADE* will check for available disk space.

Files affected by *wUPGRADE* conversion

During this procedure, all of the old files will be renamed with "3X" (or "2X") as the extension or part of the file name. If any of the following filenames already exist, *wUPGRADE* will not process the conversion, will warn you and then skip ahead to convert the next one.

Version 3 file name	Renamed to...
ALLUSERS.DAT	ALLUSERS.3X
ALLFILES.DAT	ALLFILES.3X
MSG*.DAT	3XMSG*.DAT
MSG*.IX	3XMSG*.IX
MSG*.DIA	3XMSG*.DIA

The asterisk denotes that the message area number will be used in place of this asterisk during the conversion. e.g. MSG054.DAT will become 3XMSG54.DAT.

Version 2 file name	Renamed to...
USERFILE.DAT	USERFILE.2X
FILESPEC.DAT	FILESPEC.2X

If there is not enough space on one or more of your drives, you will be asked if you want to remove old files on a drive by drive basis. Answering **No** to any of these questions will cause *wUPGRADE* to stop and return you to DOS so you can free up some space.

Should there be insufficient disk space to perform the conversion, even by deleting the old files, *wUPGRADE* will warn you and not allow you to proceed. You will need to ensure you have a current backup, then delete all unnecessary files to make room for the new system files and run *wUPGRADE* again.

In a typical upgrade you will need approximately 20% more space for user, message and file databases than your older version required. Although the message database is now stored in a more efficient and condensed format, *wUPGRADE* still requires some temporary work-space to perform the complete upgrade.

Once under way, *wUPGRADE* will create updated copies of much of your old information, but will also rely on some files in your original directories. It is important to note that the directory tree structure that exists in your OLD system will be duplicated in your NEW system. For example, if your original system home directory was C:\WC30 and had your database path set to C:\WC30\DATABASE, then your new system will have a home path of C:\WILDCAT and a database directory of C:\WILDCAT\DATABASE.

Should you need to abort the upgrade process for any reason you can do so by pressing [ESC]. If you abort, *wUPGRADE* will restore your system to the condition it was in before the upgrade began by renaming files and removing partially updated files.

When you have finished reading the conversion notes below you can begin the *wUPGRADE* process.

Conversion notes: Version 3.x

wUPGRADE is able to do a near-complete conversion of your Version 3 configuration and data files. Nevertheless, after the upgrade process is

complete you should still run *MAKEWILD* to enter configuration parameters that did not exist for prior versions and to check all fields for accuracy. Before making changes, we strongly recommend you review the rest of this manual to acquaint yourself with the new features in version 4.

Review the following notes before and after completing your *wUPGRADE*:

- *Wildcat!* 4 uses more file handles than prior releases. This will not affect most single line systems but may require multiline systems to increase the number of file handles slightly, depending on the current settings.
- Operation in a DESQview window now requires slightly more memory. A setting of 420K is acceptable.
- The path for message attachments will remain the same as your old path. This means that all message databases will be in the new path, by default C:\WILDCAT\MSG, but the attachments will be in your old path, usually C:\WC30\MSG\ATTACH. You may copy or move the attachment files from the old directory to a new one located below the new MSG directory as long as you make the appropriate change in the new *MAKEWILD*. These locations were not changed to minimize duplication of files.
- The path for each file download area will remain the same as your old system. For example, if you organized all download paths under a single directory called XFER (C:\WC30\XFER\XXX) then your new system will also reference these path names. You may copy or move the downloadable files from the old directories to different ones as long as you make the appropriate change in the new *MAKEWILD*. Remember that any file that was located on an alternate path must remain in that location unless its "stored path" is also changed. These locations were not changed to minimize duplication of files.
- Third-party programs that access your version 3 data files (messages, files or users) and configuration files will NOT work with version 4. You will need to contact the authors of these utilities for an upgrade. If you are unsure whether a third-party program accesses the database

or configuration files you should contact the author. Programs that do not access the databases or configuration files will operate fine with WC4. Notes about specific door programs are at the end of this section.

- Due to significant changes to the prompts in version 4, your version 3 prompt files will not be converted. If you have customized your prompts, you will need to edit the new prompt files using *wcPROMPT*. Your old prompt files remain in your OLD directory and the new ones are in the new directory.
- With the new file database system of version 4, the alternate file paths of version 3 are no longer supported. During the upgrade, any files with alternate paths will be reviewed and handled as follows: When *wUPGRADE* encounters a file that does not exist in the standard path it looks in the alternate paths for the file area. If it is located in an alternate path, an entry is created in the file database with the old alternate path as the "stored path" for the new entry. When *wUPGRADE* encounters a file that does not exist in the standard path or in any of the alternate paths, an entry is created in the file database referencing the same file area, but flagged as OFFLINE. The file name is also placed in a text file called WUPGRADE.LOG along with the paths that were searched for the file. You can then use this file to identify the files that were added as OFFLINE because they couldn't be located.
- Zero-byte files are no longer or used for CD-ROM access. You can safely delete these files from your hard drive when the upgrade is complete.
- Your display files are not copied or converted. They remain in your old display files path. Your new system will use the files located in the new display files path as referenced in *MAKEWILD*. Before moving your old files into the new display area you may want to take a look at the new *Wildcat!* 4 display files and determine whether you want to use the old ones, the new ones, or a combination of both. The easiest way to view the new files is to log on locally. Also note that

the names of some display files have changed. The files that are different are:

Version 3 file name	Version 4 file name	Notes
USER####.BBS	U#######.BBS	(### is the User ID number, not record number)
FILELIST.BBS	FILELSTx.BBS	see below
CONFLIST.BBS	CONFLSTx.BBS	(x is the menu display set for each security profile)
PRECHAT.BBS	CHAT.BBS	see below
PREGROUP.BBS	CHAT.BBS	see below
PREPRIV.BBS	CHAT.BBS	Private/group combined
PRETEXT.BBS	PRESRCH.BBS	New AND/OR search options
TOMCAT.BBS	WCMAIL.BBS	Program name change

- There are also many new display files. New default versions of these files are installed in the new display files directory. The new files are all listed in Chapter 8 of this manual, but the easiest way to make sure your files are correct is to run *wcDRAW* and look at the new files to help you decide which you will leave in place and which you will overwrite with your old copies.

- Your menu files are not copied or converted. They remain in your old menu files path. Your new system will use the files located in the new menu files path as referenced in *MAKEWILD*. Before moving your old files into the new menu area you may want to take a look at the new *Wildcat!* 4 menu files and determine whether you want to use the old ones, the new ones, or a combination of both. The easiest way to view the new files is to log on locally.

- Your bulletin files are not copied or converted. They remain in your old bulletin files path. Your new system will use the files located in the new bulletin files path as referenced in *MAKEWILD*. Since you will probably want to use your original bulletins you need to copy or

move them to the new bulletin path as indicated in your new *MAKEWILD*.

- Your help files are not copied or converted. They remain in your old help files path. Your new system will use the files located in the new help files path as referenced in *MAKEWILD*. Since the new system has different options and operations you should make use of the new help files rather than the old ones. We recommend that you do not move your old help files. Also note that the new help files make use of the standard .BBS, .SCR and .RIP extensions.

- The .MDM files now have their own directory and are combined with the .RAM files. The new structure is incompatible with the old and a complete new set of .MDM files will be installed in the new directory for modem files. Do not move your old .MDM files to the new system, they will be properly converted and placed there with the extension OLD.

- You may need to create new .MDM files if you have customized versions. Be sure to check the new higher baud rates available if you operate high speed modems. Use *wcMODEM* to create these custom files.

- Check all .MDM file references in the environment (SET WCMDM=) to make certain that the file exists in the new modem directory and that the port is set properly. If you are running the new Platinum version (old IM) also check that the port is set to SERIAL, DIGI or FOSSIL as needed.

- There is now an option to encode user passwords so that no one can view them, either from within *Wildcat!* or by looking at the ALLUSERS file on disk. The *wUPGRADE* default is not to encode. Encoding is a ONE-WAY process. ***Once you have encoded your user passwords you will not be able to return to un-encoded passwords without having all users log on again as new users!*** This option is specifically for installations where the user record file is accessible to a number of individuals, and the Sysop does not want them to be able to know the passwords of everyone on the system. If encoded passwords are en-

abled the Sysop can *change* any user password but *cannot view* the password.

- There is now an option to allow duplicate user names in the system. Every user name is associated with an internal user ID number, allowing duplicate names, if desired. However, duplicate names cause significant problems for mail notification on QWK-based echomail networks and support for QWK echomail is removed if duplicate names are enabled. **If you want to use any QWK-based echomail do NOT turn on duplicate name support!**
- The old LOGIN1.BAT and LOGIN2.BAT files have been renamed to LOGON1.BAT and LOGON2.BAT to maintain consistency with the new capability to automatically run a *wcCODE* application named LOGON.WCX. Rename these two files if they are used in your system.
- Previously ALT1.BBS — ALT4.BBS were used to disconnect a caller when invoked. These file do not automatically do so on version 4. We have added @LOGOFF@ as a code that can be placed in any display file to perform an immediate disconnect.
- File passwords no longer have an on/off switch. If a file database entry had a password and it was turned on in the old system, the new file is password protected with the same password. If a file database entry had a password but it was not turned on, the new file has no password.
- If you made use of an environment variable WCHOME= you need to change it to point to the new *Wildcat!* Home directory.
- The message limits for various baud rates in TOMCAT (now *wcMAIL*) are converted. However there are new baud rates which are set by default to 1000 per packet and 200 per conference. Change these in *MAKEWILD* if desired.
- All batch files for Doors, Compressed file viewing, Menu hooks and other internal commands are now located in a separate BATCH directory. By default this new area is C:\WILDCAT\BATCH. You must

copy or move all batch files to this location. Be sure to edit these files if needed! The only exception to this is the CAT.BAT file used to start *Wildcat!*.

- The previous message conference flags for "Allow private messages" and "Force all messages private" have been replaced by the multiple choice options for "Conference message type". These options will be converted properly by *wUPGRADE* but should be reviewed for each conference.
- The old "Read only conference" is now set for each security profile, providing much more flexibility. After *wUPGRADE* you will find that conferences previously set to "Read only" will have every security profile set for "No write access" for that conference.
- The old "Default number of lines per page" is now controlled by the DEFAULT user record. A user record with the name DEFAULT provides all default values for new callers.
- The old "Display password protected files" option in *MAKEWILD* is now controlled by security profile.
- Because of the new menu system there is no longer a menu level number associated with each security profile to control access. The new security profile field "Security level for DOOR.SYS" provides the value used in DOOR.SYS, and is converted by *wUPGRADE* to match the old menu level field.
- The old events that were used to turn on and off 300, 1200 and 2400 baud access have been replaced with a single event that allows you to set the minimum baud rate allowed. The *wUPGRADE* program will attempt to convert the old events properly but you should check to be certain your baud rate events are operating as desired.
- Questionnaires no longer have a "Required" setting. This functionality has been replaced by a "Minimum length" field that performs the same function, but requires a specific number of characters. Questions that were "required" will be converted to have a minimum length of 1,

forcing at least a single character in the answer. You should edit these questions to provide an appropriate minimum length.

- Conference and file area overrides on a user by user basis are no longer supported because of the problems associated with tracking them over time (Sysops tended to forget who had them). They have been replaced with "Secondary security profiles" which can be added to any user record. Because there was no correlation between the old overrides and any specific security profile, these Secondary profiles must be created and added to user records manually.

- Because of the major change in the user record format, the old USERINFO.DAT file is no longer written to disk for doors, menu hooks, etc. It was not possible to add all the new bitmapped user settings to the old text file. The new file is USERREC.BIN, a binary file containing a near-complete user record structure. This file can easily be read by doors, and a conversion program is included called CNVUINFO.EXE. If you operate doors or hooks that make use of the old USERINFO.DAT file you can perform a conversion in your door batch files to create USERINFO.DAT before starting the door, and to create a USERREC.BIN before returning to *Wildcat!*. See Chapter 6 under Doors and External Programs for information on how to use this conversion program.

- Since many doors can also make use of DOOR.SYS, an alternative is to change your doors to look for DOOR.SYS rather than USERINFO.DAT. If you choose this alternative you need to modify your door configuration files to reflect this change.

- Some doors give special access to the user name that is record #1 in the user record, and unless you were already user record #1, the conversion may not place your name as the first record. If you use any doors that make this assumption, be sure to edit the user name in record #1 after the conversion.

- Several Fidonet mail tossers are now available for *Wildcat!* 4. However, the old internal Fido Netmail node selection interface was removed from WC4 at the request of the authors of WILDMAIL to allow

them (and others) to use a common nodelist database and provide Netmail access via a automated shell procedure. If a conference is flagged for "Fido Netmail Messages" in the conference type definition, every time a caller enters a message in that conference *Wildcat!* will shell to FIDOENTR.BAT which should contain the nodelist selection program from the Fidonet mail tosser authors. After the node is selected the caller is returned to *Wildcat!* to complete message entry. Chapter 6, *Customizing* for additional details. A simple nodelist selection program should be on your distribution disks, otherwise it is available from MSI HQ BBS as WCNETML.ZIP.

- The Fireworks screen blanker has been removed due to hardware problems on some systems when switching from text to graphic modes.

- *Wildcat!* no longer uses 9999 to indicate a security profile has unlimited download access. A setting of 0 performs this function in the new release in order to be consistent with other settings in the profile definition. During the *wUPGRADE* process, profiles set to 9999 will be converted to 0 to allow unlimited access, and those with an entry of 0 (previously used to prohibit downloads) will have their file access limited to viewing file listings.

- TNet echo handling is now performed by *wcECHO* (or *wcGATE* if purchased). The hub configuration files must be converted using TNETCONV.EXE, a command line program that creates hub configuration files compatible with the new *MAKEECHO* (and *MAKEGATE*). Run TNETCONV /? for command line options and instructions.

- The following list of programs may need special attention before operation with *Wildcat!* 4 because of file structure differences:

  Postmaster, Logmessage, Flop, Attache, Doorsec, Freshen, Offline, Setconf, Swapsec, Userflag, Dataview, CSPro

  Dupmsg and Censor are no longer supported by the author.

- Transcan will only operate if you turn off the ability to place notification in the file database. Romdoor will only operate if you turn off the

option to write a message to *Wildcat!*. You must also set General Options to "Other DOOR.SYS" rather than "WILDCAT!". Also be sure to set up new user access levels that are in sync with the numbered "Security Level for DOOR.SYS" in each Security Profile.

Conversion notes: Versions 1, 2 and Test Drive

After finishing the upgrade you must still perform a complete system check and enter configuration parameters that did not exist for prior versions. Check every *MAKEWILD* setting for accuracy! Check the following items especially:

- Although the security profiles correctly reflect the menu access level for users, the menu definition screens have not been converted. Make certain that the access toggles for each menu item correctly match your old system.
- As part of the conversion, all users are given access to all nodes in a Multiline environment and adjustments should be made if needed.
- The file database conversion truncates the short description since versions prior to 3.x allowed 2 lines of 40 characters each while the new release only supports 70 characters total. This only affects old descriptions that filled the entire second line.
- Your *Wildcat!* registration number is not automatically placed in *MAKEWILD*. It was previously stored in the executable file.
- External protocols Kermit and Zmodem are now internal and the use of letters K and Z for external protocols is no longer allowed.
- All 26 message folders are converted to the first 26 conferences, numbered from 0 — 25. Be careful which users are given access to conferences 24 and 25 since they contain your old wastebasket messages and comments to the Sysop respectively.
- Events are not converted, and need to be rescheduled using the new event management system.
- Questionnaires are not converted.

Now that *wUPGRADE* is finished . . .

Log onto your BBS locally and check the operation of each command. Review the rest of this *Wildcat!* Sysop Guide for tips and features. If you have any problems not covered in the Sysop Guide, feel free to call MSI Technical Support at (805) 873-2550, 9am-5pm Pacific time.

2 - Inside *Wildcat!*

Being good in business is the most fascinating kind of art.

Andy Warhol

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On the surface, *Wildcat!* may look like any other Bulletin Board System. This is by design. Much effort has been spent incorporating popular features of other BBS systems, including many of the command options. This is where the similarity ends, however. The *Wildcat!* BBS is designed to present all of its information in an organized way that is consistent throughout the program, its utilities, and the user interface.

To make the most of your *Wildcat!* BBS, it's important to review some basic organizational concepts of the software. The four key points to understand are the Database, Menu, Conference and Security Profile features of *Wildcat!* BBS.

How *Wildcat!* is organized

Database structure

Wildcat! is organized around a set of databases containing information on users, files, and messages. A database is like a box of file cards, with each card, or record, containing information about a specific user, message, or file. And as anyone who has ever had to manage a large amount of information can tell you, the better organized the information is, the more efficiently you can make use of it.

You can begin to appreciate the power and flexibility of this approach when you consider that by organizing information this way, it then becomes possible to retrieve data almost instantly, by searching an index containing selected information about each record. It is also easy for the System Operator to perform "relational lookups" — for instance, instantly viewing and modifying the user record of a caller who uploaded a file or posted a message.

A database structure also provides better security for your data. One obvious example is the Files database. In order for a user to download a file (copy the file from the BBS to the user's computer), a record for that file must exist in the file database. This helps protect sensitive files, including files containing your system configuration and user information, from being downloaded without your knowledge — if the file is not listed in the database, as far as *Wildcat!* is concerned it doesn't exist.

A single User Database tracks all users on the BBS. Likewise, a single File Database tracks all files available for download. Message files are organized a little differently. There is one database for *each* conference (or message area), with up to 32,760 conferences in total.

Each database is independent of the others, and database changes are usually made from within *Wildcat!*. Each database consists of a data file (.DAT) as well as an index file (.IX) to speed up searches. The user and file databases also have quick index files (.QX), and possibly a dialog file (.DIA) depending on the environment in which *Wildcat!* is configured to operate.

When you first start your *Wildcat!* system, all database files are empty. As you begin adding users, messages and files, new records will be created within the databases.

Menu structure

The second important part of *Wildcat!*'s organization is the menu structure. While earlier versions of *Wildcat!* had four menus: Main, Message, File and Sysop, *Wildcat!* version 4 allows menus to be structured any way you like.

Menu commands include the usual Message, File, Sysop and User functions, plus "stacked commands" executed from a single menu selection or *wcCODE* program. These stacked commands can enhance or replace internal functions such as Menus, DOS hooks or "doors".

Most Sysops will probably continue to follow the four-menu structure, and this is the default provided with *Wildcat!* version 4. However, the menu structure can be modified using the program *MAKEMENU*. You can easily include additional branches, *wcCODE* applications and DOS programs in your menus, and reorganize menu items in a way that suits you and your callers.

Wildcat! is capable of generating "dynamic" menus for each caller, based on the information in that caller's security profile. The dynamic menus are perfectly functional, but perhaps a little plain.

It is possible to over-ride the default "dynamic" menus by associating a set of menu files with a security profile. These menu files can be created in "BBS", "SCR", and "RIP" versions, to suit callers with no color, color, and RIPscrip display modes.

Custom menu files typically contain a list of all commands available to members of the caller's security profile, along with whatever finishing touches you care to add in the way of color, ASCII, ANSI or RIP graphics. For your convenience, we have provided a set of sample menus of each type, illustrating some of the many approaches to designing menus.

By using *Wildcat!* system macros, information about the caller and the system can form a part of your custom menu files. For instance, you might like to display the current time, and the number of minutes the caller has been logged on as part of the information on the menu.

To help your new users, you might want to turn your menus into a step by step instruction screen on how to get from one part of the BBS to another — a brief explanation of commands and their function, as part of the menu screen, will be very helpful to new callers unfamiliar with the BBS. Or you might like to advertise features of your BBS or your products on the menu screens. The possibilities are limitless.

Multi-language support

You can translate menus and system prompts into other languages. *Wildcat!* will then allow callers to select their preferred language. You can prompt callers to select a language every time they log on, or callers can store their preference in their user settings.

Conference structure

The third component is the Conference structure. Within *Wildcat!*, a conference is defined as a section containing a database of messages, along with optional menu and display files, bulletins, questionnaires, and file areas.

Messages + files + security profiles = conference

Each conference contains its own message database, allowing you to create multiple message bases. Each conference message base can have one or more (or even all) file areas associated with it, and file areas may be shared among more than one conference.

This allows you complete flexibility to customize your message and file areas. Instead of a public BBS, with multiple conferences organized by topic referencing identical file areas, your set-up could resemble a "leased" BBS. The groups of users could be completely isolated from one another, each with their own private message conferences and file areas, oblivious to the existence of the others.

Security profiles

The final point of organization in *Wildcat!* BBS is the Security Profile. While other kinds of BBS software offer security access by numbers, with each level having higher access than the ones numerically below it, *Wildcat!* is based instead on Security Profiles with meaningful names.

The security profile stores information about a group of callers. Included in the profile definition are access to conference areas, file areas, nodes and menu commands. Also included are custom display files and menus sent to this group of callers only, file upload and download ratios, time limits per call and per day, and much more.

What you can do with *Wildcat!*

There are as many ways to use *Wildcat!* BBS as there are people. The majority of Bulletin Board Systems, however, fall into a few broad categories, and in the next few paragraphs we discuss some of these categories in the words of some actual *Wildcat!* BBS operators.

Wildcat! is very popular with individuals and small business owners who want to run Bulletin Board Systems, because it is easy to set up and requires little maintenance, plus it offers excellent security and complete configurability.

Many of *Wildcat!*'s features are geared to the "hobbyist" user who wants to offer on-line games, shareware and public domain file downloads, and public message areas on a variety of topics.

Many other people operate a *Wildcat!* BBS to further their special interests. There are systems devoted to such things as coin collecting, model cars, or rock music.

A Special Interest BBS

Tom Carroll, Program Director, WTUE 104.7 FM, Dayton, Ohio

As with all program directors, my first concern is reaching as many listeners as possible, especially the 18-34-year-old age group so sought after by advertisers.

The best way to succeed in a medium such as radio is to be unique and targeted. But the age bracket that I just mentioned is becoming an increasingly difficult group to reach. People in their late teens and early twenties are more fractured and divided in their interests than ever before.

Musically, this group listens to rap, grunge and country — all formats that WTUE's classic rock-based format, consisting of the likes of Led Zeppelin and Pink Floyd, must compete with. In addition, 18-34-year-old listeners also devote attention to everything from MTV to VEGA video games. At a fundamental level, radio just might not be as important to this generation as it has been to others.

Appealing To New Listeners

But there is a common good that bonds this so-called "Generation X" like nothing else: this age group is the first ever to grow up computer literate, having used computers for most of their lives. Strange as it may seem, in this fact lies a strong mutual relationship between computers and radio. One might think that computers would only further divide the attention of potential listeners, but this is not necessarily the case.

For two years now I have been running the WTUE FM 104.7 Bulletin Board, to act as an extension of our radio station. It has been very successful, and I believe it represents a broad range of possibilities for all radio stations, cutting through formats and age boundaries. The 19-24-year-old age group may not rely on radio as much as previous generations, but it is still possible, with a BBS, to reach these people and provide them with the fun atmosphere radio has been known for in the past.

In case this sounds terribly hi-tech, it's not. I had never used a computer, and never thought that I ever would until a friend bought one in mid-1991. I began to tinker with it, and one day an engineer at the station gave me an old modem, telling me my life would never be the same. Soon I had discovered the world of BBSs — there are more than 200 in Dayton alone operated by various businesses and hobbyists. After that my friend had a lot of trouble using his own computer. BBSs were like a secret, underground world, and the amount of information and conversation available fascinated me. Soon it became apparent to me that there just had to be an application for a bulletin board in conjunction with the radio station.

The WTUE BBS Gets Started

When I started the WTUE FM 104.7 BBS on Halloween night 1991, I still was unaware of what the reception might be.

However, the BBS was an immediate success as we received 35-40 calls per day during weekdays and more on the weekend. So far, I estimate that 700 active users participate on a frequent basis. Most of that activity

is from the Dayton area, but we get calls from all over the country. One user even calls daily from Palm Springs, Calif.!

On some levels, the BBS is just an extension of normal radio functions: people can play games and win prizes on it, or they can call for information about concerts. But instead of painfully cradling a phone in their ear while they write, they can just download and print. Callers can converse with one another, request songs, make suggestions regarding format, download a station newsletter, and much more.

The challenge for me is to keep the BBS fresh and localized. I do this by adding items and files that the state and nationwide press usually leave out, such as the basketball schedule for the University of Dayton, or concert listings for the smaller concert clubs in the area. I also go around the country — BBS-wise, that is — to find files to update the bulletin board.

Over time, a picture of our average BBS user emerged, younger and smarter, independent but still desiring the sense of community radio offers. And the success of the BBS has resulted with almost no advertising or on the air announcements. The callers have gone out on their own, found our BBS via random searching for interesting Bulletin Boards, and continued to call-in regularly.

Benefits Of The BBS For WTUE

This puts WTUE in a great position. There is no paid advertising on the BBS, so no money is made on it. It's just meant to be entertaining, educational and useful. It's also great public relations.

Everytime someone calls onto the BBS, they have to look at my call letters. Even when people listening to other stations call in - sometimes using that station's call letters as their password - they still look at our call letters. So people who have never even heard or rarely listen to the station have a positive image of it. As for those who already listen, it continues to strengthen the identification among our listeners.

With the bulletin board, the visibility of the station is enhanced, as is its reputation for reaching out to the community. It also gives us the appear-

ance of being cutting edge, which is especially important when some people think of classic rock as pure nostalgia.

But besides good public relations, I want the WTUE bulletin board to provide over all fun, and to restore a sense of community so vital to radio. As far as I am aware, we are the only rock station currently offering a system such as this, even though I know some stations have called in to check out what our BBS is all about.

The competition for radio station listenership isn't going to go away, and by the same token, future generations aren't going to be using computers any less. Who would have thought that a computer might kick start some life into radio, cutting across formats, age and other barriers? It is truly exciting that a grass-roots phenomenon like this is taking place, and that an audience doesn't have to be hit over the head with a message. If you upload it, they will come.

A Corporate BBS

Ron Baker, Architectural Production Manager, HDR, Inc., Omaha, Neb.

The Need For A Communications Solution

As architectural production manager in Omaha for Henningson, Durham, and Richardson, Inc. (HDR), an architectural and engineering company with offices in Omaha, Neb.; Alexandria, Vir.; and Dallas, Tex., I was able to see that our company's internal communications needed to be advanced beyond the old paper memo.

A method was required to allow HDR to communicate with clients both internally and externally. Obviously, communications between our offices is of the utmost importance. In all, HDR employs 1,500 people specializing in health care, justice and corporate architecture, and all phases of engineering, including water, waste-water, transportation and civil engineering. In addition, we deal with dozens of in-progress construction projects around the country.

Our company had access to messaging software that was available on our mainframe computer, but this software was often too slow and far too cumbersome to be an effective communications tool. Then, in 1988, we decided on a course of action. A senior systems analyst at HDR, Floyd Pretz, and I had been computer hobbyists for several years, and we thought that perhaps the electronic bulletin board system (BBS) technology that was just emerging could help our company. We had both called into the BBSs maintained by other sysops, and we were convinced that a BBS could have definite advantages for HDR.

Although BBSs were a relatively unknown phenomenon in the late 1980s, response from both within and outside the company was enthusiastic upon the installation of the bulletin board. Clients, contractors and others all now communicate with HDR via the company's BBS, sending and receiving drawings and other data.

The bulletin board is widely used within HDR, as all workstations on our LAN and WAN have access to the BBS. The BBS allows HDR employees to leave messages for each other and to transfer intra-office files.The HDR BBS is even used to back up our file servers. The ability of the BBS to work on a network and its security capabilities are its most attractive features.

As an added bonus, Floyd and I started an offshoot of the company's BBS and offered it to the general public, and the reception has been similarly enthusiastic. To date, the BBS has over 2,800 users, over 3,000 shareware files are available for download, and it has been used to transfer more than 117,000 electronic messages since its inception in 1988. Our two audiences, internal and public, share the same databases, but folder access is strictly regulated.

In addition, our BBS has given a lot of attention to HDR, with users in the general public continually complimenting us, praising the BBS as one of the best in town. We really wanted to give the public a BBS they would enjoy and find useful, and it is gratifying to know that we have succeeded while providing good public relations for HDR.

The BBS is easy to maintain, and is also a low cost solution that does not have many hardware demands. Bulletin boards are also very versatile: For

the layman who does not know much about computers, it is still easy to install a BBS; For a large company such as ours, the same software with some minor modifications and security developments can still be used to service hundreds of workers.

I know that our success has influenced some of our associates to start using BBSs. Engineering companies we work with have started using bulletin boards, and a client of ours, the National Institute Of Science and Technology, first shared our BBS and then decided to start its own internal system. BBSs are only going to grow in their popularity, and rightfully so. There are so many advantages to the, and the technology and graphics involved are becoming increasingly sophisticated without being overly difficult to use.

An information provider

Robert J. Flaherty, M.D., Project Director, Virtual Medical Center, Montana State University, Bozeman, MT

When the health community at large thinks of telemedicine, much attention is focused on the eagerly awaited video machine technology. While the video aspect of telemedicine does have its advantages, it shouldn't overshadow important new developments in electronic bulletin board systems (BBS), which is proving to be a more versatile, much less expensive and more practical method of transferring information between health professionals.

The BBS I am involved with is called the Virtual Medical Center (VMC), which operates from Montana State University in Bozeman, Mont. Started in January 1993, the VMC has served more than 1,400 individual callers and a grand total of more than 33,000 calls. Currently, the VMC handles about 100 calls per day. The VMC is used primarily by rural health professionals in Montana and Washington, but is accessible to the entire country. Occasionally, we even get calls from Canada, Great Britain, Mexico and Sweden.

A BBS like the VMC has two primary activities. One is E-mail, which allows callers to send and receive private or public messages. The other is

electronic file transfer, which allows a caller to download, for example, a continuing education file into his computer.

The Virtual Medical Center got its start in mid-1988. Dr. Frank Newman, the head of the Montana Area Health Education Center, and I both wondered if BBS technology could assist us in offering continuing education to rural health professionals spread across the state.

Later that year, we set up HEALTHCON, a single-line system that offered continuing education information. Soon the BBS took on new dimensions, as health-related topics such as medical journal articles and health legislation began to be discussed by those using the BBS.

HEALTHCON attracted unforeseen but welcome attention. Merck Pharmaceutical learned of what we were doing and asked us if we would consider running an information center for users of their products on the BBS. With grants from both Merck and Digital Equipment Corp. (DEC) we were able to expand the capabilities of our BBS and take HEALTHCON in a whole new direction.

Virtual Medical Center is Born

Since many health professionals in Montana lack access to a university medical center, I wanted to recreate, inside a computer, the educational and consultational possibilities that a university and its libraries have to offer. Thus the VMC was born, with four call-in lines and nearly 50 times the call activity of its predecessor.

We weren't sure initially what the market would be for the VMC, since no one could be sure how many health professionals had access to computers either in their offices, homes or hospitals. But we quickly received an overwhelming response from the community. The VMC was used for purposes we had never even considered, such as consultations for specific cases and listing public health information. Now such uses are the cornerstone of the VMC BBS.

We know of health professionals who have bought computer equipment for the sole purpose of hooking up to the VMC. Knowledge of electronic

technology has infiltrated into the community so much that every public health department in the state has a modem.

The VMC Grows in Scope

The VMC provides several different services. For instance, when a man in Great Falls, Mont. was killed by the hantaviris strain running rampant in deer mice, within 12 hours information on the case and information on the diagnosis and treatment of the hantavirus had been uploaded onto the VMC by the Montana State Department of Health and was available throughout the nation. Information on hantavirus also included a bibliography and a message from the Center for Disease Control. Users could then download those files into their computers, no matter where they were.

The VMC also offers specific data services in the form of BBS "conferences" on such topics as pharmaceutical usage and side affects, public health information, and clinical consultations. For example, a health professional can leave a question on the BBS for a colleague, who can then seek out the answer and put the reply on the BBS, often within 24 hours.

The VMC has recently added on-line recruitment databases to help alleviate the shortage of rural health professionals. Employers can enter information into the "Employment Opportunities" database about job openings at their institution, and can upload a word-processor file with detailed information about the job, the institution and the community. Similarly, callers seeking health profession employment can enter information about themselves into the "Employment Wanted" database, and can upload a copy of their resume. Callers can easily search each database while connected to the VMC.

Many "private" networks also run on the VMC, perhaps the most prominent being the Montana Public Health net, which links 40 county health departments with the state health department. Also available are the Montana Aging Network, The Montana Consortium for Excellence in Healthcare, and the National Area Health Education Centers Network.

Many other applications are also possible. I would like to develop a nursing consultation network in conjunction with the nursing school at Montana State University, and a physician consultation network with the University of Washington Medical Center. In both cases the BBS could be used as the means to communicate.

The Future of the VMC

I am also running into situations that could have impact on more populated areas. I am currently working with a city of 40,000 people to develop a system that would assist them in the treatment of psychiatric patients. A patient may come to clinic A for one outpatient visit, clinic B the next. Obviously, the patient won't have his charts. With a BBS, a clinic could communicate with a central depository that held the patient's records. Obviously, this system could be even more beneficial to a city such as New York or Los Angeles.

Recognition of the importance of this aspect of telemedicine is growing. I have seen nearly 60 versions of health reform bills in the past few months, and all of them refer to the importance of systems such as the VMC. Recently, I was invited to testify on this matter before the U.S. Senate Subcommittee On Science, Technology and Space. Many see the telemedicine method as a way of making healthcare more accessible and less expensive.

A sales tool

Jeff Tucker of The Prudential Carolinas Realty in Charlotte, N.C., is the Sysop of "The Real Estate Shop BBS," which he uses to market property to new and existing clients, as well as share computer files and data with other Realtors.

"It's good to share information, because that's what customers really need to make a smart buying decision," Tucker said, who has been a Realtor in Charlotte for more than seven years. "On-line services like electronic bulletin boards are the future of real estate."

Callers interested in buying a home answer a short questionnaire to determine what they want — location, price, size, etc. Tucker then initiates a computer search through the more than 7,000 listings in the Multiple Listing Service and creates a list of candidate homse, which he posts for buyers to review in subsequent calls.

Buyers can then take their lists and search the locations on their own, or get more detailed help from Tucker. One of the best features of the BBS is that in addition to reporting data on a particular property, the board can display a picture of the home as well, using an add-on program designed for real estate professionals.

BBS helps attract business

Tucker recently concluded a sale to a client who was moving to Charlotte from South Bend, Ind. The Realtor and client conducted their initial "discussions" entirely by BBS. It was not until the client had narrowed down his search from 80 properties to 10 that the two finally met face-to-face.

"The client was a BBS hobbyist and among the things he did when scouting Charlotte was check out the local bulletin boards," Tucker said. "He saw my BBS on a list and he called it." Tucker himself maintains a list of other boards, which he calls "The National List Of Real Estate Boards," which is perhaps the most complete roster of real-estate specific BBSs.

Tucker's BBS also provides information to colleagues

In addition to locating potential clients and maintaining his nationwide real estate BBS list, Tucker also provides conferences within his BBS that are designed solely to help colleagues. Other Realtors can call the board and download files, including "shareware" tools such as amortization programs. A wealth of data on mortgages, refinancing and investing, as well as housing statistics, is also available to Realtors.

Tucker would like to begin selling advertising space to other Realtors and providers of real estate-related services on the board.

Designing your BBS

The installation program for *Wildcat!* includes a set of default sample configuration files. By using those default files, it is possible for your BBS to begin taking calls in no time at all. The sample configurations are for a very basic system, and represent only one of the many to use *Wildcat!* BBS.

Most Sysops, however, will want to take some time to modify those default configurations to suit their own needs before putting the BBS "on the air". Of course you can make changes at any time to your initial configuration as your needs change plus your understanding of *Wildcat!* improves. By taking the time to read this section of the manual first, you'll be better equipped to design your BBS the way you want it right from the start.

Appearance

Keeping in mind the flexibility allowed by conference definitions, it is possible for each conference to have its own unique set of menus (with a different set of menus for each security profile), display files, bulletins and help files. Additionally, up to three sets of files are possible for each display, menu, bulletin and help screen —non-color, color ANSI, and RIP.

The possibilities are almost limitless, so you should take care to prevent a situation where the number of different conference paths, menu display sets, and bulletins overwhelms the Sysop trying to maintain them.

We will talk more about creating and editing display files, menus, help files and bulletins in Chapter 6, *Customizing*.

Display files

A display file in *Wildcat!* is an information screen sent to the caller. Display files provide additional information about the action the user wishes to perform, and suggest options.

These files are all located in the path for Display Files, configured as part of the Conference Definition in *MAKEWILD*. Note that you may, if you wish, specify a separate display file path for *each* conference.

All of the display files are highly customizable and may contain color, system information and even graphics. You may, for instance, wish to replace the "generic" information in the standard display files with information specific to your BBS and your callers.

Menus

Wildcat! automatically generates and displays "dynamic" menus, showing only those menu commands available at the caller's access level. These dynamic menus may be somewhat bland in appearance, however, and many Sysops prefer to replace them with menu display files which contain the same list of command options, but in a more appealing layout.

Each security profile can have its own set of corresponding menu files, and each conference can have its own path for menu files as well. As with display files, menus can be created in non color, ANSI and RIPscrip.

Bulletins

The Bulletin Menu is one of the first things your callers are likely to see when they log into the BBS. Normally, the Bulletin Menu contains text files which provide the caller with information about the BBS, the "house rules", information for new users, and other topics relevant to the focus of the BBS. Note that you may, if you wish, specify a separate bulletin path for *each* conference.

Wildcat! always checks the file dates of the bulletins and compares them with the caller's last logon date, and notifies the caller of any updated bulletins.

Help files

A help file in *Wildcat!* is a text file sent to the caller when the caller requests help on any program function. These files are all located in the path for Help Files, configured as part of the Conference Definition in *MAKEWILD*. Note that you may, if you wish, specify a separate help file path for *each* conference.

System prompts

Most of the text prompts and colors used in *Wildcat!* can be customized by the Sysop, using the program *wcPROMPT*. *Wildcat!* allows you to have multiple language files, allowing you to support multilingual callers, standard "scripting" prompts, and customized wording and colors.

More information on *wcPROMPT*, and customizing prompt files, is available in Chapter 6, *Customizing*.

Languages

You can translate all the text *Wildcat!* displays to the caller into other languages with the *wcPROMPT* and *MAKEMENU* utility programs. Language files are stored in subdirectories under the \WILDCAT\LANGUAGE directory. Each language has its own subdirectory. Each language has its own chat, prompt and menu files.

Structure

It is wise to give some thought to the structure of your BBS before you begin fine-tuning your setup. For instance, how many message areas do you want? How many file areas, and how should they be organized? How many security profiles will you need to create for all the combinations of caller access to menu commands, message and file areas?

While it is always possible to go in and make changes later on if you aren't happy with your current setup, a little advance planning will make these changes easier to accomplish.

Message areas

Message areas are usually organized by topic. A product support BBS would normally have message areas for each product, while a public BBS may have message areas for chitchat, hardware, debate, and so on. Message areas should be specific enough that a user can figure out where a new message should be posted, but general enough so that the selection of topic areas is not confusingly large.

Echomail networks already have pre-defined message areas, and it's important to make sure your configuration matches these definitions so that messages belonging in one area are not accidentally placed in another area where they don't belong.

File areas

Once again, file areas are normally organized by category. A private company BBS may have a file area for each client, to which only that client and the company's staff have access to upload and download files. A public BBS offering shareware files may offer download categories such as "DOS utilities", "Business programs", and "Graphics".

File areas should be organized so that a caller searching for a particular type of file to download can select the proper file area to search — if you have a large number of graphic files, for instance, it may be useful to separate them into categories reflecting some common element such as "Clip Art: People", "Raytrace", and "Graphic Viewing Utilities".

Consider also how many upload directories you need, or want. A public BBS may have an area for "General uploads", and another for "Private uploads for the Sysop".

Your callers should not normally be able to download files directly from your upload directory, nor should they be able to upload to your download directories — the main reason being that you would have too little control over the content or legality of files your callers are distributing this way.

Security Profiles

The question of how many security profiles you need depends again on the way you plan to use the BBS. The most general categories for user security would be "Newuser", "Fulluser" and "Sysop". A person with "Newuser" access has limited capabilities on the BBS until their registration information is verified, or their subscription payment is received.

Someone with "Fulluser" access has more access than a "Newuser", and would be able to see and use all parts of the BBS not reserved for the Sysop.

Finally, the Sysop has access to everything, including the user and file database editors, and other Sysop level menu commands.

Remember that you can create multiple security profiles which have the same level of menu access, but different access to message and file areas — this is useful for instance on product support BBSs where it is necessary to distinguish callers by the products they are licensed to use.

Secondary Profiles are supplementary profiles that allow you to define additional conference, node and file area access settings. You can then link these security overrides to callers on a user-by-user basis. This is a handy way to handle infrequent cases where security profiles alone are not enough to define access for individual users.

Options

A wide variety of options can be added to your BBS, to offer special services to your callers. These are discussed in greater detail in Chapter 6, *Customizing*, but we will present a brief overview of them here.

Local node

All versions of *Wildcat!*, including the Single Line version, have a local-only Sysop node for maintenance and local logons. This local node is set up in exactly the same way as multiline and network systems, and requires either DESQview on a 386 or higher PC, or a local area network (LAN).

You can do everything on the local node that you can do on any of the regular nodes, with the exception that the local node does not have the capability to address a serial port or modem, either directly or through the use of a fossil driver or communication port redirection through Doorway or similar programs.

You can find out more about multiline setup, including local node operation, in Chapter 7, *Multiline setup*.

Doors and Menu hooks

Doors and Menu hooks are simply batch files executed by *Wildcat!* during a shell to DOS, in response to a menu selection. Almost any DOS program that runs in text mode can be run as a menu selection on the BBS, provided a few conditions are met. These conditions mostly are concerned with redirection of I/O from the console to the communications port.

Off-the-shelf DOS programs are not your only option for doors on the BBS. A wide variety of custom door applications are available for *Wildcat!*, ranging from on-line games to serious business applications such as text search and retrieval programs, on-line order entry systems and database lookup programs.

Echomail

Echomail allows you to "echo" or "mirror" some or all of your message conferences with other Bulletin Board Systems. Echomail makes it possible to connect your BBS with others all over the world, and is a worthwhile addition to a public BBS. Private and institutional systems can also make use of their own internal Echomail networks, to send E-mail between branch offices.

You can find out more about the built-in Echomail functions in Chapter 6, *Customizing*.

Off-line mail system

An off-line mail system allows your callers to log in and download new messages in a compressed file, allowing them to read and reply to their mail after they disconnect from the BBS. This saves toll charges for your callers, and makes more efficient use of your system by keeping calls short.

The *wcMAIL* off-line mail program is provided with *Wildcat!* BBS, and follows the industry standard QWK/REP mail protocol. This allows your call-

ers to use any QWK/REP compatible mail reader, including MSI's own *Off-Line Xpress*.

External protocols

Although the file transfer protocols provided with *Wildcat!* are normally sufficient for almost every application, there are a few cases where specialized protocols may be useful or necessary. For instance, bi-directional protocols such as HS/Link allow callers to upload and download simultaneously, at nearly full speed in both directions. Other protocols allow callers to view graphics files on screen as they are downloaded.

Compressed File viewing

Most downloadable files on a BBS are stored in a compressed "archive" format, allowing several related files to be packed into a single "envelope". The Compressed File Viewing option allows callers to view the contents of these compressed files.

GIF thumbnails

The Graphics Information File (GIF) format was originally developed to transmit high-resolution graphics or pictures in a compressed format via electronic mail systems.

Callers can "preview" a selection of GIFs before they download the actual files, by using *Wildcat!'s* "Thumbnail" GIF view feature. This actually creates a GIF file with each of the selected pictures tiled on the screen. This way, callers can edit their download lists after previewing their selection of picture files, and only download the pictures they really want.

Multi-user chat

The multi-user chat features of *wcCHAT* provide public and private channels, moderated chats, aliases, and action keywords, all with multilingual support. This is a great feature not just for entertainment systems, but for product support forums as well, where a specialist can be on hand on a scheduled basis to answer questions from other callers.

The chat system is highly configurable, and gives you complete control over access to chat channels and moderation. It even includes a configurable "profanity filter". You can find out more about *wcCHAT* in Chapter 6, *Customizing*.

Virus scanning and post-upload processing

Many BBS callers and system operators are concerned about the transmission of "virus" programs in files. *Wildcat!* automatically executes a batch file after each upload, to process the file before it is added to the file database.

Many options are possible: through the use of third-party programs: you can scan for viruses, check the age, contents and file integrity of uploaded archives, delete unwanted files such as BBS ads from within archives, import newly received data files into an accounting program — even redirect uploads for processing by other devices such as imagesetters or plotters.

Automatic insertion of prepared file descriptions

Your upload processing can include automatic insertion of prepared file descriptions from the standard description files contained in many archives. The two files *Wildcat!* recognizes are FILE_ID.DIZ, a multiple-line description, and DESC.SDI, a single line description. *Wildcat!* will automatically execute FILEDESC.BAT after an upload, and will import the description file extracted during that batch operation. You can find out more about file upload processing in Chapter 6, *Customizing*.

wcCODE applications

wcCODE applications are compiled programs executed by *Wildcat!* as menu selections. You can modify or replace almost any internal program function with a *wcCODE* application, or you can add new functions or operations for your board. For instance, you can change the default logon sequence, or create an order entry program that calculates and displays the total cost of the products ordered. You can even compile and run the old, but well-known BASIC "Lunar Lander" game.

You can run compiled *wcCODE* applications supplied by MSI and others, or you can create your own with the optional *wcCODE* development kit.

Multiline operation

The *Wildcat!* Single Line version provides a local-only node (Node 0) for Sysop logons while the BBS is up and taking calls. To attach more than one phone line, or to run *Wildcat!* on a local area network (LAN), you need a multiline version. 10 and 250 user versions are available.

Wildcat! Multiline is "network-friendly" — in other words for multi-user access, you execute WILDCAT.EXE multiple times, once for each incoming modem connection and LAN connection.

Depending on your hardware, it is also possible to run multiple *Wildcat!* sessions on a single machine using Microsoft Windows, OS/2 or a multitasking operating environment called DESQview from Quarterdeck Office Systems. Windows, OS/2 and DESQview all manage the memory in your 386 or higher PC, and create virtual machines each with their own DOS environment.

The number of virtual machines is dictated by the total amount of RAM in your system — typically 1 to 2 megabytes of RAM is required for each incoming phone line. Up to 4 lines are possible on one PC using regular serial ports, up to 8 using multi-port cards such as the intelligent DigiChannel card. Larger systems require a LAN and multiple CPUs, each of which may be running Windows or DESQview.

Chapter 7, *Multiline setup* provides more details on how to set up and run a multiline BBS.

3 - *Wildcat!* setup

About one-fifth of people are against everything all the time.

Robert F. Kennedy

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There are three steps you *must* complete before you're ready to put your BBS "on the air". First, you need to run the setup program, *MAKEWILD*, to define the basic characteristics of your BBS.

The next step is to set up your modem so it is ready to receive calls. *wcMODEM* is designed to help you set up and test your modem.

The final step, if you plan to offer files for your callers to download, is to create a file database containing information about the file names, paths and descriptions. The program *wcFILE* is designed to help you do this.

These three programs are all you need at first to set up and run a standard *Wildcat!* BBS. If you're a new Sysop, we recommend you allow yourself enough time to become familiar with the basics before you begin to add options to your BBS.

Many of *Wildcat!'s* features can be customized with special utilities we have provided with your package, for instance *wcPROMPT*, *wcDRAW*, and *MAKEMENU*. We will discuss all those programs and more in the following chapters.

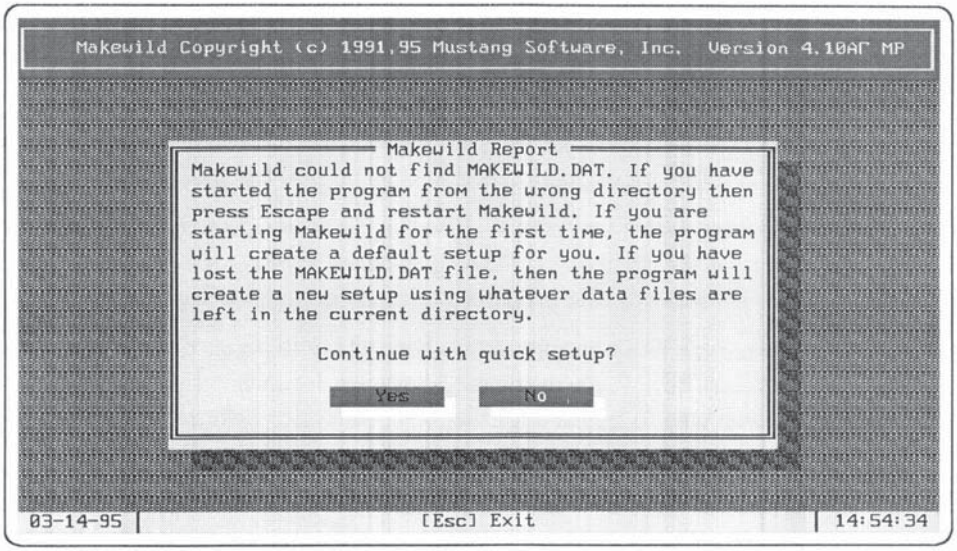
MAKEWILD

When to use MAKEWILD

MAKEWILD is the main setup program for *Wildcat!*. It allows you to define the basic operational characteristics of your BBS, from general settings such as file paths, memory management and display modes, to security, message and file options.

Running *MAKEWILD* for the first time

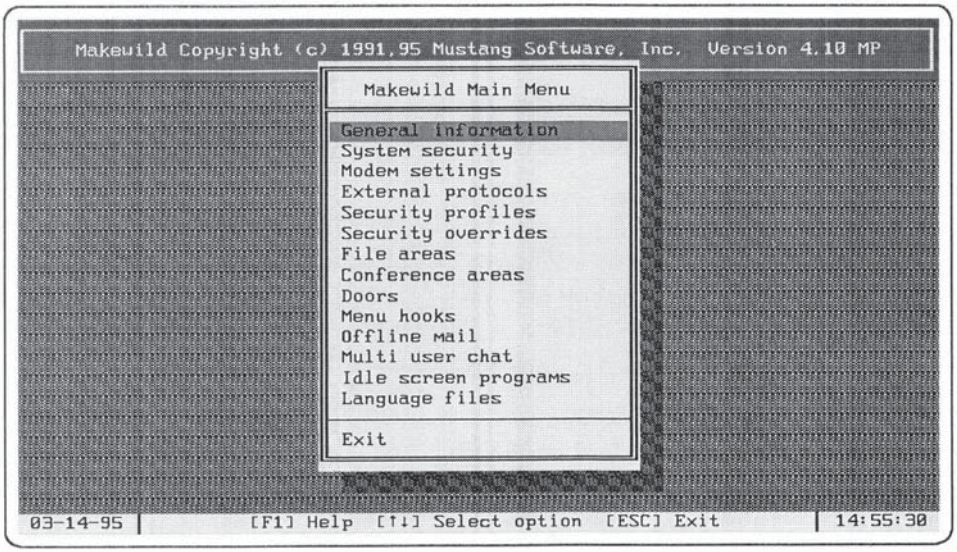
If you run *MAKEWILD* in a directory where it can't find its configuration files, it will pop up an information message like the one shown below. This is a safeguard to remind you to change to your WILDCAT directory, and helps avoid creating multiple and potentially confusing sets of configurations.



If you elected to install *Wildcat!* without the sample configuration files, none of these configuration files will be present in the WILDCAT directory, so you should answer Yes to the question "Continue with quick setup?".

The Quick Setup menu asks you a few simple questions. Don't worry if you make a mistake filling in this information, or if you're not sure of the correct answer. You'll have an opportunity to change your answers later.

Press F9 when you're finished with the Quick Setup menu. *MAKEWILD* will create the necessary configuration files in the current directory, and the Main Menu will appear. Select the information you want to edit by moving the highlight bar on your screen, and press ENTER.



Because of the way *MAKEWILD* reads and writes your *Wildcat!* data files, you can only make changes to the system configuration when all nodes are down. If you simply want to view your settings without changing anything, you can start *MAKEWILD* in "read-only" mode, which allows you to view settings without making changes. You do this by typing

```
MAKEWILD /R ENTER
```

Note the command line switch "/R". You can find a complete list of *MAKEWILD* command line options in a table later in this section.

Menu commands

General information

The General Information screen is where you set options that affect the overall operation of your BBS: memory usage, screen modes, and file paths. This screen is several pages long. Use your PG UP and PG DN keys to

move around, or use your mouse on the scroll bar at the right side of the window.

Press F10 to close this window, save your changes, and return to the main menu, or press ESC to abandon any changes you made.

Sysop's name

Enter your first and last names as you wish to be known on the BBS. This is the name *Wildcat!* uses when it enters the Sysop's name in messages and comments, conference Sysop name in the message areas, in the @SYSOP@ macro in display files, and for local Sysop logons.

Note that entering your Sysop name here does not in and of itself create a "Sysop" user record on the BBS. You must still logon as a new user to create a user account for yourself, then upgrade yourself to Sysop, before you will have Sysop privileges.

If you elect to allow duplicate user names on your BBS, you may prefer to enter your User ID number instead of your name here. You will not have a User ID number until you log onto the BBS for the first time. You can find your User ID number by looking at your own user record from the Sysop Menu User File Edit command. Note that your User ID number is *not* the same as your *Wildcat!* registration number.

The name of your BBS

It's traditional for Bulletin Board Systems to have a name that describes in some way the theme of the system, or the company or organization that operates it. *Wildcat!* uses this information in the @BBS@ macro in display files and prompts, and at various other places in the program.

Be creative, but give some thought to the overall impression you want to create. For instance:

```
XYZ Corporation BBS
Sub Sailor's BBS
Center City Computer User Group BBS
```

BBS Phone number

Enter the phone number for your BBS here. As with the preceding questions, *Wildcat!* displays this information in fill-in macros, and in various other parts of the program. If you run a multiline BBS with several phone numbers, use your best judgment about which number should be entered here — for instance the first number in your hunt group, or the first number for your public access lines.

Registration number

Enter the number from the registration card bound inside the cover of this manual. Don't forget to fill in and mail the card as soon as possible, so that Mustang Software Inc. can enroll you in our technical support database and keep you informed on new products and upgrades.

Date your board took its first call

Enter today's date if this is a brand new BBS, or the actual date your BBS first began taking calls if it is an established system.

Inactivity before flexible events

0	5	180

As you will learn later in this manual, you can schedule *Wildcat!* to run "events" that execute batch files or do internal maintenance on particular times and days. A flexible event is one whose time of execution is not specified just as long as it runs at some time during a particular day.

Wildcat! will run these flexible events when the system has been idle (waiting for calls) for the time specified in this question.

Time to start forcing flexible events

00:00	18:00	24:00

If your BBS has been so busy taking calls and performing other activity that a scheduled flexible event has not been executed by the time you specify here, you can force the event to occur regardless of the amount of

time *Wildcat!* has been idle. This ensures that the event runs on the day scheduled.

Number of message areas

1	10	32,760

This is the number of message topic areas (conferences) to create. The maximum number is 32,760 message areas. A message area has its own database file (which can be in its own path), plus it can also have its own paths for bulletins, display files, help files, menus, and questionnaires. You can see all the options for conference definition under "Conference Areas" on the *MAKEWILD* main menu.

This is one part of your BBS where a little advance planning and organization really pays off — particularly if you offer a large selection of message areas through Echomail. Feel free to assign more message areas than you need right now, and feel free to leave "gaps" for future expansion as you fill in the list of message area names.

Give some thought to the numbering scheme, and group related message areas together, starting new groups of message topics at some round number, for instance a multiple of 10 or 100.

Number of file areas

1	10	32,760

The same considerations for message area organization and numbering apply here too. You can have a maximum of 32,760 file areas. As you will see later, a file area is associated with a path on your hard disk, but the files associated with a file area can be located anywhere you like — not necessarily in the subdirectory you've defined for a file area.

Once again, it's best to group related file areas together, and you should try to find a happy medium between being too general: for example a single file area for general DOS utilities which contains thousands of files, or hundreds of file areas for graphics files separated by topic so that each

file area contains only a few files. Either extreme will make it difficult for your callers to find the files they're looking for, and could well make your job as Sysop more difficult too.

Path for user database

```
C:\WILDCAT\DATA\
```

This question, and the ones that follow, let you specify paths for some of *Wildcat!'s* support and data files — in this case the user database files. For example, you can organize your BBS over several drives or partitions, if you like. Always remember to specify the drive letter as well as the path.

MAKEWILD automatically adds the trailing backslash "\" for you, and will create any new paths when you exit the program. Notice also that you can press F2 to pop up a directory tree for any question that asks for a path name.

Path for node information file

```
C:\WILDCAT\DATA\
```

This is where *Wildcat!* looks for its control file, NODEINFO.DAT. This file allows *Wildcat!* to track the operational status for each node, the total number of calls to the BBS, and the quick statistics displayed on the Idle Screen. This is how *Wildcat!* shares information from one node to another in a multi-node system. You can use *wcREPAIR* or *wcNODE* to edit the information in NODEINFO.DAT, if necessary.

Path for file database

```
C:\WILDCAT\DATA\
```

The file database contains the name, size, path, and description for each file in your file library.

Path for modem setup files

C:\WILDCAT\MODEM\

Wildcat! comes with a large number of pre-configured modem setup files. To avoid cluttering up the main WILDCAT directory with these small files, they should be stored in their own directory.

Path for batch files

C:\WILDCAT\BATCH\

This is the main path for batch files for doors, external protocols, events, post-upload file processing and any other batch process executed by *Wildcat!*. When *Wildcat!* executes a batch file, it looks here first for the file to execute.

Note that you can create custom batch files for individual nodes in the node subdirectories, for instance C:\WILDCAT\WCWORK\NODE1, by giving batch files the extension .RUN.

Path for chat data files

C:\WILDCAT\CHAT\

This is the path for files used by the multi-user chat module *wcCHAT*.

Path for language files

C:\WILDCAT\LANGUAGE\

Menu files (created by *MAKEMENU*) and prompt files (created by *wcPROMPT*) go in this directory. These are the files containing the text your callers see on their screens.

Default group name

Local file areas

The default group name is the description of the file database you wish to offer as your "main" file database. If you wish to offer a different file database group, enter the group name here.

Default file extension

ZIP

Most BBS files are stored in some kind of archived format, and one of the most popular for DOS files is PKWare's ZIP format. If a caller leaves the file name extension off when typing in the name of a file that they wish to view or download, *Wildcat!* will fill it in with this extension automatically.

Generate file keywords dynamically

Y	N

To speed up file searches, *Wildcat!* stores keywords for each file. If you set this option to "No", *Wildcat!* will prompt callers to enter keywords when they upload files. If you set this to "Yes", *Wildcat!* will select keywords from the file description.

You can prevent some words from being selected as keywords, for instance "great", "cool", "fantastic" or anything else in the description that is not relevant to the file, by adding them to BADKEYS.LST, in your WILDCAT directory.

Index long file descriptions

Y	N

For even faster searching, you can let *Wildcat!* index every word in the long file description by setting this to "Yes". Your callers can find all files whose extended descriptions include the words they're searching for, and

by using Boolean operators such as AND, OR and NOT, they can narrow their selections down to find only the files they really want.

Copy files from CD-ROM on transfers

Y	N

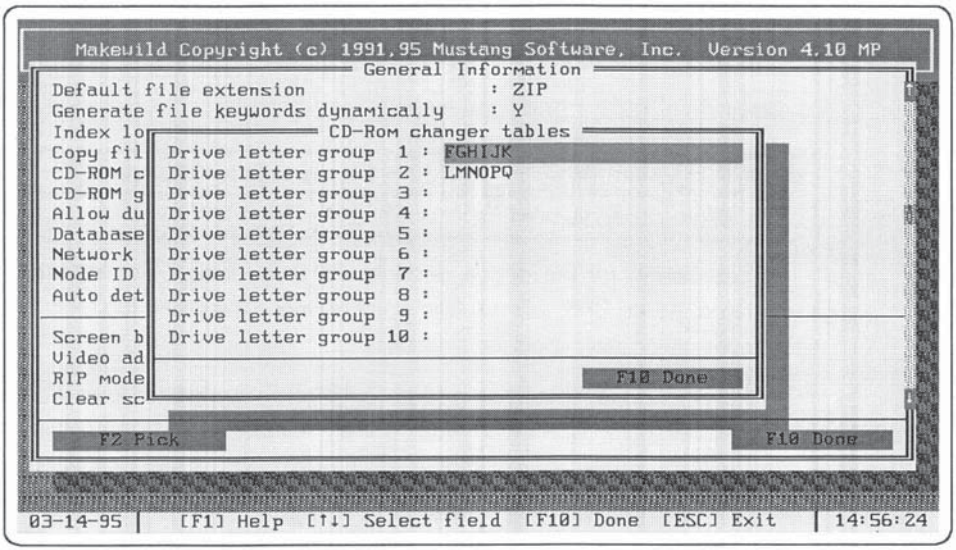
If you use CD-ROM drives, you have probably already noticed that they are often only about as fast as a floppy drive for accessing files. This can seriously impede download performance, and the problem is magnified if you have a CD-ROM changer.

Try setting this option to "Yes" if your CD-ROM drive or changer has trouble keeping up with file transfers. *Wildcat!* will then copy files from the CD to a temporary directory on the hard drive, allowing callers to download them at full speed. When the download is finished, *Wildcat!* will delete the temporary files.

CD-ROM changer tables

Another problem with CD-ROM changers occurs when callers on a multiline BBS try to download files that are on more than one CD. The result is that the changer keeps loading and reloading different disks as the callers queue up files, slowing things down to a standstill.

The CD-ROM changer tables allow you to specify which drive letters belong to each changer, so that *Wildcat!* can process download requests more efficiently.



A typical example would be a Pioneer 6-disk changer, which loads one disk at a time into the drive from a cartridge. Each disk in the cartridge has its own drive letter. By entering the drive letters for each disk in the changer into the changer table, *Wildcat!* then knows that this group of drive letters belong to the changer. If callers request files from more than one disk in a device table, *Wildcat!* copies files from one disk at a time and avoids swapping disks in and out repeatedly.

If you have more than one CD-ROM changer, enter the drive letters for each changer on a separate line. For the changer tables to work effectively, you should be sure the previous option, "Copy files from CD-ROM", is set to "Yes".

CD-ROM group drives

The program *wcFILE* allows you to create multiple file databases that organize files by "group". Each group can identify file locations on CD-ROM (or on a network volume, or a hard drive or partition) by group name, rather than by the DOS drive letter of the physical CD-ROM drive.

Enter the drive letters of any CD-ROM drives that are associated with a file group database in wcFILE. You can enter up to 26 drives here.

Allow duplicate user names

No duplicate names	No, prompt for location
Yes, allow duplicate names	

The best setting for this option depends on many things. For instance, if you run a closed BBS, there is little point asking callers their location since there will be no new users logging on.

On the other hand, if you run a large public BBS, sooner or later you will have two or more callers who want to use the same name.

If you want to allow new users a second chance to enter a unique name, try setting this option to **No, prompt for location.**

```
WILDCAT! Copyright (c) 87,94 Mustang Software, Inc.  All Rights Reserved.
Registration Number: 00-0000.  v4.01 MP   (MultiLine Platinum).  Node: 176.

      You have connected to node 176 on MSI HQ BBS

            This system is operating on Wildcat! v4

           Please make use of your real name on this BBS

What is your first name? gwen barnes
Looking up your name. Please wait...

Are you GWEN BARNES from Mustang Software, Inc. [Y/n]? [Y]

 Name GWEN BARNES, Mustang Software, Inc.          Age 40  File PRELOG.BBS
 Node 176 Baud Local   Time 5     Sec SYSOP     |Key|Prn|Pag|Bel|Cap|
```

In this case, a new caller has a second chance to enter a user name that is not already taken.

If you run an open BBS for a fairly small group of callers, the additional logon question may prove more of an annoyance than a convenience, since the likelihood of users with the same first and last names is small.

If you change this option to **Yes, allow duplicate names**, *Wildcat!* will associate a unique user ID number with each caller, allowing them to use their real names and still have a unique identity on the BBS. If you have four people named "Jim Smith" on your BBS, each will be prompted for his unique user ID number when he logs on.

Duplicate names cause significant problems for mail notification on QWK-based echomail networks and support for QWK echomail is removed if duplicate names are enabled. **If you want to use any QWK-based echomail do NOT turn on duplicate name support!**

If you choose to allow duplicate names, there may be some user names on your BBS you don't want to duplicate for security reasons — your own Sysop name for instance. You can protect certain user names from re-use by adding them to BADNAMES.LST.

Database file safety mode

None	Partial	Full

Database file safety mode refers to the way *Wildcat!* updates records in the user, message and file databases. The options, **None, Partial** and **Full**, range from fastest to slowest, from safe to very safe.

Each level of database file safety offers a different level of protection from such things as power outages, network problems and lockups. The Partial and Full settings write database changes to disk more often than the None setting, while the Full setting uses an additional set of dialog files as a fail-safe.

If you are running a single-line BBS, select None or Partial. Multiline systems should select Partial or Full, taking into account that on all but the

fastest networks, the additional disk I/O and CPU activity required for Full safety mode may slow the system down noticeably.

Even with the safety mode set to None, there is little danger of database corruption, and any that does occur is easy to fix with *wcREPAIR*.

Network type

No network	Novell NetWare	DOS share

All versions of *Wildcat!* are technically capable of multi-user operation, even the single line version, which has a local-only node designated as "Node 0" (zero). If you want to use Node 0 for local logons while the BBS is running, change the network type from **No Network** to the correct option for the kind of network interface you will be using.

Most local area networks and DESQview use **DOS Share** as their file locking mechanism, and this is normally the setting you should select unless you are running your BBS on a **Novell NetWare** network.

Node ID

0	1	(depends on version)

This is the default node ID number *Wildcat!* will use if automatic node assignment is not in effect, or if you start *Wildcat!* up without a node ID number specified in the environment.

Each node in a multi-node system has its own node ID number. This is one of the ways *Wildcat!* determines "ownership" of a data file whenever it is read or updated. Depending on your version of *Wildcat!*, the highest node number will be 1, 10 or 250.

Wildcat! uses a single set of configuration files, even for multiline systems, and uses environment variables to assign node ID numbers and other node-dependent configurations if they differ from the main configuration stored in *MAKEWILD*.

You should not ordinarily change this number unless you have a specific reason for doing so.

Auto determine node ID

Y	N

For single line systems and multiline systems where the majority of nodes are dial-in, we recommend leaving this option set to "No".

However, rather than assigning specific node ID numbers to each incoming line or network node, you can elect to have *Wildcat!* automatically assign the next available node ID number to each node that is activated.

The advantage to assigning node numbers automatically becomes evident on large LANs where you want to avoid setting up each user with a node ID number in their environment settings.

It's generally best to assign fixed node ID numbers to dial-in nodes, even if you allow LAN nodes to be assigned automatically. You can do this by changing the setting here to "Yes", and assigning fixed node numbers to your dial-in lines with an environment variable.

Screen blanker type

None	Box	Blank out

If you have a monitor subject to screen burn-in you can choose to blank the screen automatically when *Wildcat!* has been idle for a certain period of time. The first option, **None**, does not turn off the screen display. The second option, **Box**, displays information about the last caller in a small box that moves around the screen. The third option, **Blank out**, blanks the screen completely. In all cases, when a call comes in or a key is pressed, *Wildcat!* turns the screen display back on.

Video adapter type

Color	Mono	Auto Detect

The **Auto Detect** option is the correct setting for most systems. You may need to change this to **Mono** or **Color** if the video adapter in your PC is not detected.

RIP mode for system

RIP disabled	Standard RIP	Forced RIP

RIP disabled: No RIP graphics, menus or display files are offered in this mode, even if *Wildcat!* detects RIP mode during logon.

Standard RIP: If *Wildcat!* detects RIP mode during logon, and the caller's user record display type is set to RIP or Auto Detect, *Wildcat!* sends the standard RIP screens, menus, display files and prompts.

Forced RIP: When *Wildcat!* detects RIPscrip emulation during a connection, you can have it set some defaults in the caller's user records to enable the proper display and operation of RIPscrip graphics. These defaults are:

- Novice mode is forced on
- Full Screen Editor is forced on
- Hot Keys are forced off
- Message Scroll mode is forced on
- RIP mode is forced on for the current call only.

These user settings will remain in effect regardless of changes a caller makes, until the caller logs on in non-RIP graphics mode.

Clear screen before menus

Y	N

This setting is strictly a matter of preference. If you elect to leave this setting at "No", menus will appear to scroll up from the bottom of the page. If you change it to "Yes", *Wildcat!* will clear the screen before displaying a menu, making it appear to scroll down from the top of the screen.

Default split screen chat

Y	N

You have two options for the way in which *Wildcat!* handles Sysop chat (this is not the same thing as multi-user chat). With split screen chat turned off, as you and your callers type, text is displayed on the screen line by line. With split screen chat turned on, the Sysop's and callers' typing appear in two windows.

Your callers must have ANSI terminal emulation to display the split screen chat properly, and most who use PC communications software have this capability. If most of your callers use non-IBM systems that are not ANSI-capable leave this option as "No".

Regardless of the way you set this default, you can still toggle from full screen to split screen mode while you are chatting with a caller.

Make bulletin menu optional

Y	N

You have two choices on when to display the bulletin menu to callers. Change this setting to "Yes" to show the bulletin menu *only* when you have updated one or more of the bulletins or leave this at "No" to show the bulletin menu every time a caller logs on.

Force callers to 8/N/1

Y	N

Set this option to "Yes" if your callers need to be able to use foreign (high ASCII) characters in their names when they log on. Otherwise leave this set to "No" to allow callers with 7-E-1 systems to log on to your system.

Date format for country

11/17/67 (MM/DD/YY)	11/17/1967 (MM/DD/YYYY)
17/11/67 (DD/MM/YY)	17/11/1967 (DD/MM/YYYY)
67/11/17 (YY/MM/DD)	1967/11/17 (YYYY/MM/DD)

You can cycle through the options for this setting with the spacebar, or press the F2 key to pop up a list. Select the date format that matches the prevalent usage in your area.

Time format for country

3:30p (HH:MMT)	3:30pm (HH:MMTE)	15:30 (HH:MM)

The default time format displays the time in hours and minutes, followed by am for morning or pm for afternoon. Press F2 to see the other options. The third one on the list is 24-hour "military" time.

What do "T" and "TE" mean?

These are "time masks", which tell *Wildcat!* whether and how to display the "am" and "pm" suffixes. The mask "T" displays simply "a" or "p", while the mask "TE" displays "am" or "pm", depending on the time of day.

Use free form phone numbers

Y	N

The default setting is formatted for phone numbers in North America: ###-###-####. If you want your callers to be able to enter overseas phone numbers which follow other formats, change this option to "Yes".

Thumbnail viewer file name

THUMB.GIF

The thumbnail file viewer is a way for callers to queue up a list of picture files, then assemble them into a single image which they can download and preview before downloading the actual files. *Wildcat!* passes the file

name you enter here to GIFSCOPE.EXE, which creates the thumbnail image file.

Prompt for language choice at logon

Y	N

Wildcat! allows you to offer more than one language for system prompts and menus. If you want your callers to select their language preference every time they log on, change this setting to "Yes". If you prefer to allow them to make the choice from the User Settings menu, answer "No" to this option.

Size of scrollback buffer (in K)

0	5	60 maximum

You can watch what your callers are doing, even if the previous few pages of information have scrolled off the screen, by pressing the [↑] key. You can then use the arrow keys or [PG UP] and [PG DN] keys to scroll the screen without the caller being aware of your activity. The [ESC] key exits scrollback mode and returns to the regular display.

The setting here allows you to define the amount of memory (RAM) to use for the scrollback buffer. Each screen of scrollback requires approximately 2K of RAM. Keep in mind that by increasing this figure, you also increase the amount of memory *Wildcat!* requires to operate.

Where should overlay be held

Disk	EMS	XMS

To conserve memory, many of *Wildcat!*'s functions are loaded into RAM from an overlay file when needed, then unloaded when the task is complete.

If you have sufficient EMS or XMS memory, try setting this option to match your memory configuration. *Wildcat!* will load its entire overlay file in memory, thus cutting down on the amount of disk access and improving the performance of your system.

This would not be a good choice if you are running *Wildcat!* from a front-end mailer, however, because every time the program starts, it must read the entire overlay file from disk, thus increasing the time it takes to bring up the BBS.

Extra memory in K for overlay buffer

0	100 maximum

You can still improve the performance of your system while keeping the overlay on disk by increasing the size of the overlay buffer. The maximum number you can enter here is 100k. 40k is a good starting point.

This will, of course, increase the amount of memory *Wildcat!* requires, so it's best to increase this amount a step at a time to find the right figure for your system. This option has no effect if you have chosen to hold the overlay file in EMS or XMS.

Where should swapped data be held

Disk	EMS
XMS	No Swap

When *Wildcat!* executes a DOS shell, for instance to run a door or other external program, it frees up DOS memory by making a copy of itself to disk, EMS or XMS, then freeing up the DOS memory it occupied. When the external program has finished, *Wildcat!* restores itself to DOS memory.

The four options here are **Disk, EMS** (expanded memory), **XMS** (extended memory specification), and **No Swap.** *Wildcat!* will swap to disk if you don't have enough EMS or XMS memory available, and the No Swap setting will simply execute a shell to DOS without removing *Wildcat!* from memory. This may *not* leave enough available memory in a DOS shell to execute other programs such as *wcMAIL*, external protocols, or doors.

Terminate on DOORS and MENU Hooks

Yes	No

Although a DOS shell is almost always the best choice for external programs, there are some instances when it is better to terminate *Wildcat!*. An example might be if you run an application which needs even more memory than the standard swapping procedure can provide.

If you choose to terminate, your CAT.BAT file will have to test for the existence of other batch files created by *Wildcat!* when it terminates, and your door batch files will have to restart *Wildcat!* properly when they finish.

Check if printer on-line

Yes	No

Some system operators like to log caller activity to the printer as well as to the ACTIVITY.### log file. You can turn on printer logging from the Sysop menu in *Wildcat!*, in the node management screen.

Printers vary in the way they send error messages such as "off line" or "out of paper" to the computer, and depending on your printer, you may experience problems if you change this option to "Yes".

System security

The System Security screen allows you to set security options that should apply to *all* callers to your BBS. You can define security options for individual callers and groups of callers in the Security Profiles and Security Overrides sections.

Newuser access to system

Open	Closed
Closed Comment	Closed Questionnaire

Your answer to this question depends on whether or not you want to allow new users to log on to your BBS and create their own user accounts. The first option is **Open**, which means anyone can log on as a new user. The second option, **Closed**, logs off any users whose names are not already in *Wildcat!'s* user database. Two more "Closed" options, **Closed Comment** and **Closed Questionnaire,** allow unrecognized callers to leave a comment to the Sysop or answer a questionnaire (QUESCLOS.DAT) before *Wildcat!* logs them off.

Even if you plan to run a closed BBS, you still need to set this option to Open for your first logon as Sysop, so *Wildcat!* will create a user record entry for you. After that, you can run *MAKEWILD* again and set Newuser Access back to Closed. You can then add new users by typing their information into the Sysop menu user database screen.

Newuser security profile name

NEWUSER	(other valid profile)

If you set your "Newuser access to system" to "Open", *Wildcat!* will automatically assign the security profile in this question to new callers. You can use the newuser questionnaire QUESNEW to change this profile automatically based on the caller's response to the questions, or you can upgrade them manually if needed.

Encrypt user password on system

Yes	No

Wildcat! offers you a one-time opportunity to encode (encrypt) passwords in the user file. Encoded passwords will not be visible to the Sysop or to any other user, either through the user edit screens in *Wildcat!* or *wcPRO*, nor through browsing in the user database file from DOS.

Callers with Master Sysop access will be able to change but not view encoded user passwords. Unencoded passwords can be viewed only by callers with Master Sysop access.

You have a one-time option during the initial setup of *Wildcat!* to encode user passwords. **Note that once the passwords are encoded in the user records, there is no way to decode it. Use this option *carefully!***

Encoded passwords cannot be viewed by the sysop or by any other user. Unencoded passwords can be viewed by users with Master Sysop security. The only way an encoded password can be changed is for the Master Sysop to delete it and manually enter a new password.

Display security profile to caller

Yes	No

If you want your callers to be able to see the security profile name you've assigned to them on the "Your Settings" screen in *Wildcat!*, change this option to "Yes".

Number of password attempts

1	3	10

You can allow your callers up to 10 attempts to enter their passwords correctly before they're logged off. Prior to logging off, they are given the opportunity to leave a note for the Sysop to explain why they were unable to enter their correct password.

Log off for failed birthdate or phone

Yes	No

You can configure *Wildcat!* to ask callers periodically to enter their birthdate and voice phone numbers, as an additional security precaution. If they fail to enter this information correctly, you can allow them to continue their call (the default), or you can change this option to "Yes" and log them off.

Lock out on security failure

Yes	No

For the tightest possible security, change this option to "Yes". If someone attempts to log on and cannot provide the correct password, birthdate or phone number, *Wildcat!* will offer the caller the chance to leave a comment explaining the situation, then log him off and lock out his user record. *Wildcat!* will also lock out a caller if they hang up at any verification prompt. If this happens, the caller cannot log on again, even if he remembers his password, until you manually change the locked out status.

Use this option with caution, and only if the need for security overrides the potential inconvenience to your users. A prank caller might decide to lock out other users, even the Sysop, by logging on with someone else's name, and deliberately failing one of the verification prompts. If you set this to "Yes", you should probably disable the "Who's on-line" and "User List" menu functions to make it harder for prank callers to guess user names.

Console security type

None	Console password	No console

Under normal operation, only the system operator has physical access to the computer running the BBS. Thus, only the system operator and other trusted individuals are able to execute local console commands such as on-line upgrade, idle screen programs and Sysop logon. Callers logging

on through a modem connection can never execute any of these local console commands, so this does not present a security problem.

In some other situations, for instance when the BBS is installed on a local area network with workstations available to staff or the public, you may want to lock out these sensitive commands to prevent local users from gaining easy access to Sysop menu commands and other security-sensitive areas of the BBS.

The three options here are **None**, which provides full access to the local Sysop keyboard commands, **Console Password,** which prompts the local user for a password (see below) before executing console commands, or **No Console**, which locks out console commands except for ALT L local logon and F9 system shutdown.

Console password

If you chose **Console Password** (above) as your console security type, enter a password here. The usual precautions about password security apply here — **never** use the same password for console security that you used for your Sysop logon!

Allow local upgrade for non Sysops

Yes	No

If you want to prevent local users who do not have Sysop access from giving themselves or others on-line upgrades with the F9 key, but you do not wish to disable all the other local console keys, set this option to "No".

You must leave this option set to "Yes" until you have logged on yourself for the first time and upgraded yourself to Sysop security.

Allow user to change birthdate
Allow user to change phone number

Yes	No	Note to Sysop

Since *Wildcat!* allows you to use the callers birthdate and voice phone number as a periodic security check, you may not want callers to change these two items without your knowledge.

The three options here are **Yes**, which allows callers to make changes whenever they want, **No**, which prohibits birthdate and phone number changes, and **Note to Sysop**, which asks the user to explain the reason for the change, then sends the request as a message to the Sysop. You are then responsible for making the change in the caller's user record.

Allow user to change alias

Yes	No	Note to Sysop

If you choose to allow your callers to use alias names in one or more message areas, you may want to exercise some degree of control over changes. The options here are the same as the ones above: **Yes, No** and **Note to Sysop**.

Random user name confusion in alias conferences may be desirable in some cases, but in most cases it is not. If the object is to provide callers with anonymity through a permanent "handle", set this to "Note to Sysop" or "No". If you don't mind your users masquerading as multiple personalities, go ahead and set this to "Yes".

Can SYSOP read private mail

Yes	No

This is a system-wide setting that controls whether a caller with Sysop status in the message area can read private messages addressed to oth-

ers. It overrides all other user settings. The rule to apply is: Set this to "Yes" if users with Sysop status should be able to see private mail on the BBS.

You can give callers Sysop status either through their security profile, or to individuals on a conference-by-conference basis through a switch in their user records. You can also hide private mail from a specific user, regardless of their security, with another switch in the user record.

Modem settings

The Modem Definition screen in *MAKEWILD* is identical to the **View/Edit MDM Files** screen in *wcMODEM*, and is discussed in detail in the next chapter.

The simplest way to set up your modem with *Wildcat!* is to select one of the predefined modem definition files (MDM files) installed in the "Path for Modem Setup Files" defined earlier. Use the F3 **Load** button to pop up a list from which you can make your selection.

If you use one of the predefined MDM files, be sure to check the COM Port Number and be sure it matches the COM port where your modem is actually installed.

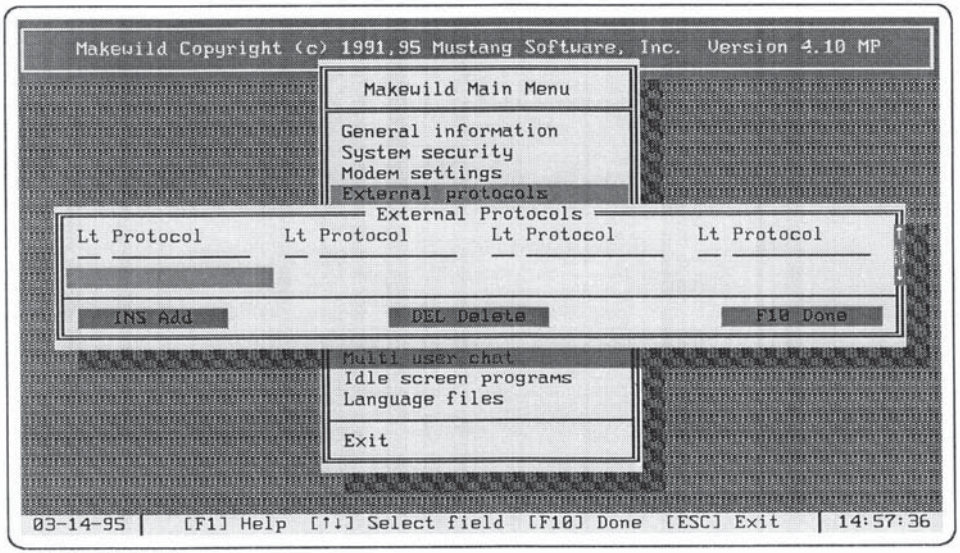
If your modem is not on the list of available choices, try one of the "Generic" MDM files most closely matching your modem's baud rate and features. If that doesn't work out well for you, call MSI Technical Support for further assistance. Additional modem configuration files may be available from the MSI HQ BBS, and our expert staff can help you with any modem set up problems you might have.

MSI regularly solicits modems from manufacturers, with the understanding that *Wildcat!* and our other communication software products will be tested and guaranteed to run on their equipment. We continue to add modem settings to our list as new manufacturers provide demonstration units for testing. Our thanks to those who have participated in this evaluation program.

External protocols

External protocols are file transfer protocols you can add to your BBS. You do this by obtaining a **protocol driver** such as HS/Link or GSZ, adding it to your file transfer protocol menu, and writing batch files to control uploads and downloads. Once these external protocols have been added to *Wildcat!*, callers will be able to use them for file transfers in the same way as they use *Wildcat!'s* built-in protocols. You can add up to 10 external protocols to *Wildcat!*.

If you are not ready to tackle the setup of external protocols, you can leave this section blank and still have access to *Wildcat!'s* internal transfer protocols: Xmodem (CRC & Checksum), 1K-Xmodem, 1K-Xmodem/G, Ymodem (batch), Ymodem/G (batch). Zmodem (batch), Kermit, and ASCII.



Press [ENTER] to edit a protocol, [INS] and [DEL] to add or delete protocols. When you edit or add a protocol, you will see a screen with the following options:

Protocol character

This is the menu letter the caller can use to select the protocol. *MAKEWILD* will not let you select a protocol letter that is already in use — press [F2] to see a list of available letters.

Protocol description

This is the name of the protocol for the protocol menu. You can enter up to 12 characters here.

Download batch name
Upload batch name

These are the names of the batch files *Wildcat!* will use to execute the protocol for uploading and downloading. Once again you can use the [F2] key to view a pick-list of file names.

Batch protocol

If the transfer protocol allows a caller to send or receive many files at the same time, as opposed to one file at a time, answer "Yes".

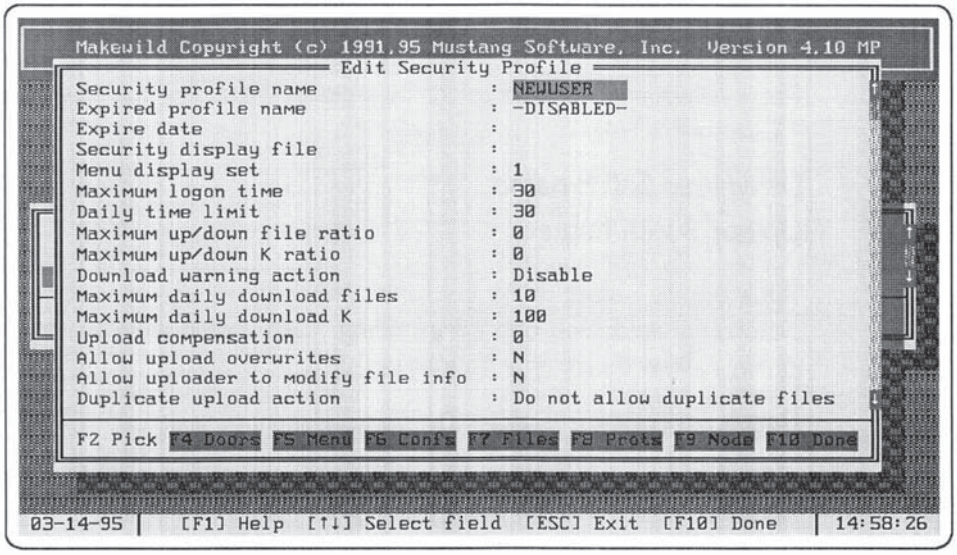
Security profiles

You may have noticed that the Security Profiles screen looks a lot like the External Protocols screen, and it works in much the same way. Press [ENTER] to edit a profile, [INS] to add, or [DEL] to delete. You can define up to 1000 security profiles.

Each security profile has a unique name, and describes a group of callers with common access to message areas, file areas, menu commands, nodes on a multiline system, transfer protocols, and so on.

Unlike many other Bulletin Board Systems, *Wildcat!'s* security profiles are not based on a numbering scheme where access levels range from lower to higher. This means you can assign access to each function of the BBS independently for each security profile. Changes to one security profile have no effect on other profiles, and you can assign any combination of privileges to a security profile.

When you add or edit a profile, you will see the following screen:



F3 Copy

Use the Copy button to copy information about one security profile to a group of other security profiles you select. This is an easy way to create a number of security profiles that share the majority of characteristics, but may have minor differences.

F4 Global modify

Global Modify displays a list of settings which may be changed for any or all security profiles you have defined.

For instance, you may wish to enable or disable an internal transfer protocol for all security profiles, or change the frequency with which phone number and birthdate verifications occur.

First, select the security profiles you want to affect with this global change. Then toggle the item you wish to change by moving the highlight bar to the item you wish to select, then pressing SPACE to toggle the selection dot on. Press ENTER to edit the value of each item you wish to apply globally to the security profiles you have selected, then press F10 to apply the changes.

Security profile name

Each security profile must have a unique name. The name can be up to 10 characters long, and may include any combination of characters, including spaces and punctuation.

Be careful when you change the name of an existing security profile. Unless you also update the security profiles of all callers affected by your change, they will be "orphaned" — *Wildcat!* will not allow them to log on if the security profile in their user record no longer exists in *MAKEWILD*.

You can change your callers' security profiles manually from the Sysop menu in *Wildcat!*, or you can use optional utilities such as *wcPRO* to make changes to a group of users.

Expired profile name

You can make a security profile "expire" on a certain date, reassigning all users in that security profile to the one you specify here. You can also set an expiration date in a caller's user record — on the caller's first logon *after* that expiration date, their security profile is changed to the one you specify here. Press F2 to pop up a list of available profiles.

Expire date

This is the expiration date for the security profile, and is independent of the expiration date in a caller's user record. All callers with this security profile will have their profile changed automatically on their first call after this expire date. If you don't want the profile to expire, press SPACE to clear the field.

You can use this to assign a group of callers to a different profile for some fixed period of time — for instance to beta test a new product. When the testing is complete, their previous security profile is automatically restored.

Security display file

The security display file is a special logon screen shown only to callers in this security profile. You can use it, for instance, to remind non-subscribing callers that additional privileges are available if they purchase a membership on your BBS, or to welcome a particular group of customers to your BBS.

You can create ASCII (BBS), ANSI (.SCR) and RIPscrip (RIP) versions of this file, and its correct location is the display file path for conference 0.

Menu display set

You can replace the internally generated "dynamic" menus with customized menu display files if you prefer. This setting allows you to assign individual sets of menu files to specific security profiles. You create your menu structure with the utility program *MAKEMENU*, then assign a "base" menu display file name to each menu you create.

Wildcat! will combine the name of the "base" menu display file with the letter or number you assign as menu display set for this security profile. You can use any character valid in a DOS file name for this. So, for instance, if the "base" filename for the Main menu is "MAIN", and the display set character for this security profile is "1", *Wildcat!* will look for and display MAIN1.BBS (or .SCR or .RIP) to callers at this security profile. If no

security-specific menu file exists, *Wildcat!* will show the "base" file, and if that isn't there, *Wildcat!* will generate its own "dynamic" menu.

You can assign the same display set character to as many security profiles as you want, and don't forget that each conference area can have its own path for menu files.

Maximum logon time

This is the maximum amount of time, in minutes, that a caller can use during a single call. The maximum is 999 minutes.

You can give your callers plenty of time per day to use the BBS, but limit the time they can stay on for a single call, by setting the maximum logon time to a lower number than the daily time limit.

You cannot set the maximum logon time to a larger value than the daily time limit.

Daily time limit

This is the maximum amount of time, in minutes, that a caller with this security profile can use during one 24-hour period regardless of how many times he calls. The maximum is 999 minutes, or 16 hours 39 minutes.

Maximum up/down file ratio

0	9999

You can encourage callers to upload files in exchange for the ones they download by setting an up/down file ratio. For instance, if you set the ratio to 20, a caller can download 20 files without uploading any. When the caller tries to download the 21st file, *Wildcat!* will ask him to upload a file before he can do any more downloading. You can use the display file RATIO.BBS to explain your up/down ratio policy. Set this value to 0 to turn off up/download file ratios.

Maximum up/down K ratio

0	255 upper limit

This option is similar to the previous one, but it allows you to specify an up/down ratio in kilobytes rather than in number of files.

Download warning action

Nothing	Warning	Disable

You have three choices about how to handle a caller who goes over their up/down file or up/down K ratio. First, you can do **Nothing** and allow the downloading to continue without any further action from *Wildcat!*. Or you can send a **Warning** to the caller that he's over his ratio, but allow the downloading to continue. Finally, you can **Disable** downloads until the caller corrects the deficit by uploading a file.

Maximum daily download files

0	10	9999

This option allows you to limit the number of files a caller can download per day. The maximum value is 9999. Set it to 0 for unlimited downloads.

Maximum daily download K

0	10	9999

Use this option to limit the number of kilobytes a caller can download. The maximum value is 9999, or almost 10 megabytes. Set this to 0 for unlimited download kilobytes.

Upload compensation

0	999

You can grant a time bonus to your callers who upload files by changing this from 0 (no compensation) to any number up to 999. For instance, to reward a caller with two minutes of extra time for each minute of upload time, set this to 2.

Allow upload overwrites

Yes	No

Set this to "Yes" if you would like callers to be able to overwrite the files they uploaded by uploading them again. This does not allow callers to overwrite other peoples' uploads — only the Sysop can do that.

Allow uploader to modify file info

Yes	No

If you want callers to be able to edit the file database information for files they uploaded, set this option to "Yes". Callers can then edit short and long descriptions, and freshen the date and size information for their own files.

Duplicate upload action

No duplicate files	Warn of duplicate files	Ignore duplicate files

Wildcat! allows more than one file with the same file name to reside in different file areas on the BBS. You have three options on how to handle a duplicate file uploaded by a caller. The first option, **No duplicate files**, rejects the upload if a file of the same name already exists. The second option, **Warn of duplicate files**, warns the caller that the file already exists but gives the caller the option to discard or rename the upload. The third

option, **Ignore Duplicate Files,** allows the caller to rename the newly-uploaded file, or overwrite the file if the caller has "overwrite" access.

Allow fast logon

Yes	No

The fast logon function in *Wildcat!* allows callers to enter a * or ! character before their first names. Callers can then skip all logon screens and go immediately to the main menu with the "*" character, or go directly to *wcMAIL* with the "!" character. This means they won't see your hello and news screens, the bulletin menu, any date-sensitive questionnaires, or the personal mail scan.

Fast logon is intended mainly for callers using automated logon scripts, for instance network nodes picking up Email for distribution to callers on other BBSs. If you want your callers to see your logon screens and bulletins, and read their personal mail when prompted, don't give them fast logon access.

Verify birthday after # calls
Verify phone after # calls

0	30	999

Default: 30

As an additional security check, you can prompt callers to periodically enter their date of birth and voice phone numbers when they log on. *Wildcat!* will check the information the caller enters, and compare it with the same information in the caller's user record. If the information is incorrect, *Wildcat!* will ask the caller to explain the situation in a comment to the Sysop.

The next step *Wildcat!* takes depends on how you have set the "Logoff for failed birthdate or phone" and "Lockout on security failure" settings in the "System security" screen in *MAKEWILD*.

Setting this to zero will disable the function.

Sysop access

No	Yes
Master	Net Status

Callers with Sysop access have special rights on the BBS, for instance they can generally read private mail in all conference areas that they have access to. The message-reading menu has additional Sysop commands to undelete, copy and move messages as does the file and user record systems.

There are four levels of Sysop access. An access level of **None** denies the caller any special privileges. An access of **Yes** grants Sysop privileges but does not allow callers to upgrade themselves to Master Sysop. The **Master** access level allows the Sysop virtually complete access to the system.

The access level of **Net Status** is used only for Echomail nodes that call your BBS to distribute Email to other systems.

Allow off-line file requests

Yes	No

Wildcat allows you to store files "off-line", that is, as database entries without a matching file on disk. Many Sysops take advantage of this feature to store older or less-popular files on backup tapes or diskettes, freeing up hard drive space for more popular files.

If a caller tries to download a file that is marked "off-line", you have the option to deny the download, or send an automatic request to the Sysop to put the file on-line. Change this option to "Yes" if you would like callers to be able to request off-line files.

Allow uploads over time limit
Allow downloads over time limit

Yes	No

File transfers can sometimes go longer than expected, particularly if the caller's modem has to adjust for line noise or transfer errors. These two options control whether or not you want to enforce the per-call and per-day time limits even during uploads and downloads.

If you leave this option set to "No", *Wildcat!* will disconnect a caller if a file transfer goes over the time limit, regardless of whether the transfer is complete. If you set this to "Yes", *Wildcat!* will allow the transfer to finish, whether or not it exceeds the caller's time limit.

Turn off Write to uploader feature

Yes	No

Set this to "Yes" if you do not want callers to be able to send messages to the uploader of a file from the File/Info menu command. This will prevent callers from discovering the alias names of other users.

Allow sending of distributed mail

Yes	No

Callers can have the option of addressing mail to a single user or to a group of users, if you set this option to "Yes".

Show password protected files

Yes	No

Wildcat! has the ability to require a password to download a file. You can determine whether to list these files along with the non-protected files or hide them from view. If you select "No", users will not know of the exis-

tence of passworded files unless advised by a message or some other means.

Security level for DOOR.SYS

Some doors require a security level number rather than a security profile name to operate correctly. When *Wildcat!* creates DOOR.SYS prior to running a door, the number you enter here will be stored in the security level line in DOOR.SYS.

Chat Sysop privileges

Yes	**No**

This option, and the ones that follow, allow you to define user privileges for this security profile in *wcCHAT*, the multi-user chat module for *Wildcat!*.

A caller with Chat Sysop privileges can log other callers out *wcCHAT*, or out of the BBS altogether. Chat Sysops can also moderate channels, and they can visit any public or private channel without notifying the participants of their presence.

We recommend giving this level of access only to security profiles with Sysop or Master Sysop status.

Allow page from chat

Yes	No

If you change this option to "Yes", callers will be able to send a short message to other callers inviting them to chat. The message will pop up on the other caller's screen as soon as it is sent providing they are not involved in a file transfer.

Allow user to be moderator

Yes	No

A moderator in a chat channel has special privileges. The moderator regulates the order in which people can speak, and can ignore a caller in the moderated channel.

Change this option to "Yes" if you want callers to be able to moderate public channels as well as their own private chat channels.

F4 Doors

Use this button to turn access on and off for doors. Press the SPACE to toggle access on or off for an individual door, or ALT S to set and ALT C to clear access for all the doors on the list.

F5 Menu

Use this button to turn access on and off for menu commands. Note that the names of the menu commands describe their function, and is not necessarily the same as the actual wording of the command as it appears on the caller's menus.

Wildcat! comes with a default menu file. You can modify this default menu file with the program *MAKEMENU*.

F6 Confs

Use this button to control a caller's access to a conference area. As you have already learned, a conference consists of a message area plus one or more file areas. A caller's security profile must have "Join" access to at least one conference area.

There are three kinds of conference access. The first level, "Read", allows callers to read messages in a conference area. The second level, "Write", allows callers to write messages. The third level, "Join", allows callers to join, or enter, the conference area and any file areas associated with it.

To make the job of assigning conference access a little easier, you can tag the conferences you want to select by moving the highlight bar to each one and pressing SPACE. You can then type R, W, and J to change access for all the tagged conferences. These letters are "toggles" — in other words, you type the same letter to turn access on or off.

You can assign the various conference access levels in any combination. Note that a caller does not have to be able to join a conference to be able to read or write messages with the "Read Selected" or "Read All" message reading commands since read command can read messages in *All* or *Selected* conferences.

Access	Comments
R	Read messages only, no file access.
RJ	Read messages only, with file access.
W	Write messages only, no file access.
J	File access only, no messages.
RW	Read and write messages, no file access.
WJ	Write messages only, with file access.
RWJ	Read and write messages, with file access.

F7 Files

You can set up file area access the same way as conference access. Keep in mind that no matter how many file areas you have associated with a conference in the "Conference Areas" screen described below, *Wildcat!* will display only those file areas a caller has access to through his security profile.

As with the conference area setup, there are three kinds of file area access. The first level, "Download", allows callers to download files from that area. The second level, "Upload", allows callers to upload files into that area. The third level, "List", allows callers to list the files in that area.

Tagging works the same way for file access as it does for conference access.

Access	Comments
D	Download files only, no uploading or listing.
DL	Download and list files, no uploading.
U	Upload files only, no downloading or listing.
L	List files only, no downloading or uploading.
DU	Download and upload files, no listing.
UL	Upload and list files, no downloading.
DUL	Download, upload and list files.

Note: it is generally best to have separate file areas for uploading and downloading, to protect yourself and your callers from inadvertent distribution of files that have not been screened and approved by the Sysop.

F8 Prots

Select the transfer protocols you would like your callers to be able to use. Notice that any external protocols you have set up will appear on the list.

F9 Node

Select the nodes you want your callers to be able to call. Callers must have access to at least one node, or *Wildcat!* will not let them log on.

Security Overrides

You can assign additional privileges to individual users by creating **Security Overrides.** These overrides contain some of the same kind of information that's in the main Security profiles, so you can offer additional menu commands, message and file areas, doors, transfer protocols and node access.

Any privileges you assign to a security override are *added* to the privileges an individual caller already has through his security profile. You cannot take access away from a caller by using security overrides.

File areas

You've already defined the number of file areas you want to have in the "General Information" screen in *MAKEWILD*. The File Areas menu is where you assign a file area name and file path to the file areas you created.

To edit a file area, use the mouse or arrow keys to select the area you want, and then press ENTER.

File area name

Enter the name of the file area you want to define, up to 30 characters.

File area path

Enter the drive and subdirectory that *Wildcat* will associate with this file area. When you exit *MAKEWILD*, it will automatically create any paths that do not already exist. You can press F2 to pop up a directory tree.

You can also specify the group name rather than an absolute drive letter to indicate the location of a file area. For instance, for a file area belonging to the Arsenal CD, you could specify

```
[ARSENAL]\UTILS\WHATEVER
```

instead of

```
D:\UTILS\WHATEVER
```

as the path for this file area. This makes it easier to change CD-ROM drive letter assignments, or use different CDs in a single drive.

Note that files in a file area do not necessarily have to be located in the file area path you enter here. Each file database record has a field for the actual location of the file, if it is different from the file area path. This al-

lows you a tremendous amount of flexibility in the way you organize your files. A file area can contain files in any path anywhere on your computer, including files on a network drive or a CD-ROM.

F5 Profile Access

You can set access to each file area by security profile from this screen, for downloading, uploading and listing. Changes you make here have the same effect on file area access as changes you make from the Security Profile and Security Override screens.

F6 Conf Access

You can set access to each file area by conference from this screen. A conference must have access to a file area if callers are to be able to list files in this area from within that conference.

Conference areas

This screen is where you name and describe each conference area. Just as with the file areas, you define the number of conference areas you want in the General Information screen in *MAKEWILD*.

F3 Copy

Use the Copy button to copy information about one conference to a group of other conferences you select. This is an easy way to create a number of conferences that share the majority of characteristics, but may have minor differences.

F4 Global

Global Modify displays a list of settings which may be changed for any or all conferences you have defined.

You may toggle the item you wish to affect by the global change by moving the highlight bar to the item you wish to select, then pressing SPACE to toggle the selection dot on. Press ENTER to edit the value of each item you

wish to apply globally to the conferences you have selected, then press F10 to apply the changes.

You may toggle the conferences you wish to affect by the global change by moving the highlight bar to the conference you wish to select, then pressing SPACE to toggle the selection dot on. Press ESC to return to the main Global Conference Modify menu.

Since many of the items selected have popup menus related to them, you may edit each popup by pressing ENTER on the item you wish to modify globally. You may edit or toggle each item on the popup. The options are SET, which will turn on access to the item for each conference defined; CLEAR, which turns off access to each item, or IGNORE, which leaves the current setting unchanged.

Press F10 to implement your changes, and ESC to return to the main Conference Definition screen.

Conference name

This is the name of the conference area, up to 25 characters. Normally, this would be the topic of the message area associated with this conference.

Conference short name

This is a 12-character "abbreviated version" of the conference name. *wcMAIL* uses these short names when it creates mail packets for callers to download. Notice that *MAKEWILD* will fill in the short name automatically from the text you enter in the conference name. You can edit this field if you need to.

Conference sysop

This is the name of the person to whom *Wildcat!* sends comments and mail addressed to "SYSOP". Leave this field blank to prevent callers from leaving comments in this conference, particularly if the conference is used

for Echomail. If you want callers to be able to send comments to you in any conference, enter your name here for *each* conference you define.

Conference message type

Normal msgs, public and private	Normal msgs, public only
Normal msgs, private only	Fido Netmail msgs, private only
Internet Email, private only	Usenet Newsgroup, public to ALL

Wildcat! handles message addressing differently, depending on the message type you select here. For most applications, including QWK, Fido, PCRelay/PostLink and other kinds of public Echomail, you should leave this set at the default.

The other choices are **Fido Netmail, private only; Internet Email, private only;** and **Usenet Newsgroup, public to ALL.** Since *Wildcat!* treats these message types in a special way, you should not change the message type from "Normal" unless the message interface software you use specifically tells you to.

Check for valid name

Yes	No

If you want your callers to be able to enter messages only to people whose names are already in your user file, set this to **Yes**. The other options are **No,** which allows callers to send a message to any name they want, and **Prompt**, which allows a caller to search for similar names if *Wildcat!* can't find a match for the name the caller entered.

You should set this option to "Prompt" or "No" for message conferences echoed to other BBSs, so your callers can send messages to people whose names are not in your local user file.

Maximum number of messages

0	200	65,520

When a caller enters a message, *Wildcat!* will automatically add it to the message file for this conference, up to a maximum of 65520 messages. You can limit the total number of messages in a conference by adjusting this setting to the number of messages you want to keep, then running *wcPACK* regularly to trim the message file.

The correct number of messages to keep depends on how much disk space you want to devote to message files, and how long you want to keep old mail. If you don't want to limit the number of messages, set this to 0 (zero).

Conference paths

Conference name	Default path
Bulletins path	C:\WILDCAT\BULL\
Questionnaires path	C:\WILDCAT\QUES\
Menus path	C:\WILDCAT\MENU\
Help files path	C:\WILDCAT\HELP\
Display files path	C:\WILDCAT\DISP\
Message path	C:\WILDCAT\MSG\
Message attach path	C:\WILDCAT\ATTACH\

Each conference can have its own path for display files, menus, message file, and so on, or it can share the same paths as other conferences on your BBS. If you want to keep things simple, and show the same set of menus, display and help files to each caller regardless of what conference they're in, set all conferences to use the same paths.

On the other hand, you can give each conference or group of conferences their own look — for instance if you run a single BBS for different

groups of clients who each want their own private conferences — by defining different paths for some or all of these items.

Allow message attachments

Yes	No

Wildcat! will let callers attach a file to a message. Anyone who has access to read the message can then immediately download the file attachment. If you don't want callers to be able to attach a file to a message, set this option to **No**.

Prompt to kill received attachment

Yes	No

If you let your callers send file attachments, you may also want to let them delete attachments on their own messages once the attachment has been downloaded. If you don't want to prompt or ask callers to delete attachments on messages addressed to them or sent by them, set this option to **No**.

Allow return receipts

Yes	No

Wildcat! can automatically notify a caller when a message has been read by the person to whom it was addressed. These messages are addressed to the sender of the message from "*Wildcat!* Mail Room" and they note the date and time the message was received.

There is little point allowing return receipts in message conferences that are shared with other BBSs unless the Echomail software specifically provides for return receipts, since there is no way for *Wildcat!* to know if a message has been received on another system. Unless your Echomail software specifically indicates otherwise, set this option to **No** for conferences that are used for anything other than local messaging only.

Prompt to kill received messages

Yes	No

If you want *Wildcat!* to prompt your callers to delete messages addressed to them once they've been read, leave this option set to "Yes". This helps keep your message bases cleared of old mail, particularly if the discussion is private or if the message content is not of interest to other callers.

On the other hand, if the messages are mostly public, and may be of interest to other callers — for instance if you use a message conference to provide product support — you may want to set this option to "No". If your callers have access to the "Kill a message" menu command they can still delete their own mail even if *Wildcat!* does not prompt them.

Allow carbon copies

Yes	No

When callers enter a message on-line, *Wildcat!* will allow them to send carbon copies of the message to anyone else. If you don't want callers to send carbon copies — particularly in Echomail conferences — set this option to "No".

Allow high ASCII characters

Yes	No

The IBM PC extended character set, also known as High ASCII, high-bit or 8-bit characters, are used for line drawing and accented characters. These characters can have unpredictable results on terminals and non-IBM compatible computers, and their use is prohibited on some Echomail networks, particularly Fidonet and Usenet.

Set this option to "No" if the conference will be used primarily by non-IBM callers, or if the Echomail networks forbid high ASCII.

Require alias names

Yes	No

Callers have the option to enter a "handle" or alias name in their user records for use in conferences that allow alias names. Any mail is then sent from the caller's alias name rather than from his real name. If you want to require alias names in this conference, set this option to "Yes".

Use long address headers

Yes	No

For compatibility with older off-line mail and Echomail programs, *Wildcat!* normally allows only 25 characters for message addressing. Internet and other high-end message networks allow, or even require, longer addresses. Set this option to "Yes" to allow full-length address information on messages.

Show CTRL lines in messages

Yes	No

Some mail processing programs use hidden text in messages for routing information and other control functions. Under most circumstances these control lines should stay hidden to avoid confusing your callers. If you want these control lines to be visible for some reason, set this option to "Yes".

F4 Door access
F5 Profiles
F7 File areas

Use these buttons to assign door, security profile and file area access to this conference. Changes you make here have the same effect on conference access as changes you make from the File Areas, Security Profile, Security Override and Doors screens.

Doors

Doors are external DOS programs that callers can execute from a menu selection. *Wildcat!* normally executes these programs from a batch file during a shell to DOS.

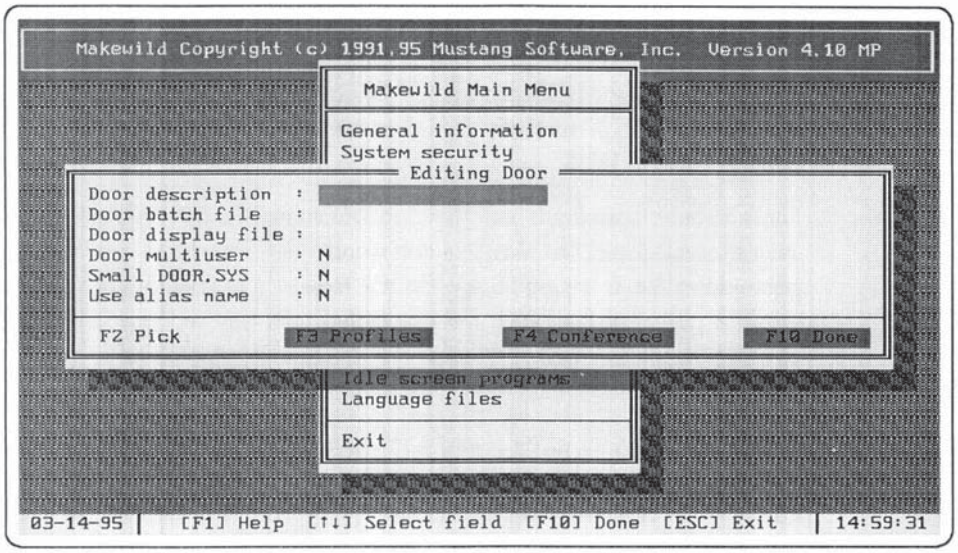
Some external programs are handled automatically by *Wildcat!*, for instance compressed file viewing command, GIF Thumbnail viewing and post-upload file scanning. These do not require any special configuration on your part — if the batch file associated with any of these commands exists in the proper path, *Wildcat!* will execute it automatically. *Wildcat!* passes any necessary command-line parameters to the batch file.

Another category of external programs are ones provided with *Wildcat!*, such as *wcMAIL* and *wcCHAT*. These have already been installed in *MAKEWILD* and will work automatically if you follow the recommended procedure of swapping for doors and external programs.

The final category of external programs are ones you obtain separately from *Wildcat!*. These include door programs written specifically for BBS use, such as games and user utilities, or they may be ordinary DOS programs run as doors through the use of a communication driver called DOORWAY.

You can define an external program in one of two ways. The first way is as a **door**. *Wildcat!* will automatically display it from the Door menu, from which the caller can select it by number. The other way is as a **menu hook**, which looks to the user like any other menu command.

The **Doors Menu** screen is set up in much the same way as the menus for Security Profile and External Protocols.



Select the door you want to edit, and press ENTER to open the .Editing Door screen.

F3 Copy

Use the Copy button to copy information about one door to a group of other doors you select. This is an easy way to create a number of doors that share the majority of characteristics, but may have minor differences.

Door description

This is the name of the external program as it will appear on your menus.

Door batch file

This is the name of the batch file *Wildcat!* executes when a caller runs an external program. You can define the directory for your door batch files in the **General Information** screen in *MAKEWILD*.

Door display file

You can display a file to the caller while the external program is loading. These display files work the same way as *Wildcat!'s* internal display files.

Door multi-user

Yes	No

Before you change this setting, be sure that the program you plan to run is capable of sharing its files properly if more than one user runs it at the same time. If the documentation for the program clearly states that it is network-compatible or multi-user capable, or you run a single-user BBS that allows no possibility of two users running a door at the same time, you can safely set this option to "Yes" to avoid having to run *wcREPAIR* to reset the "in use" flag for a crashed door.

Small DOOR.SYS

Yes	No

The DOOR.SYS file contains information passed by *Wildcat!* to an external program with information about the caller currently on line. The default is to list all conferences a caller has access to, but on systems with a very large number of conferences, this can cause problems.

If the door you are setting up appears to have a problem reading the standard DOOR.SYS file owing to the large number of conferences configured, change this option to "Yes" to list only the current conference number.

Use alias name

Set this option to "Yes" if you want Wildcat! to create a DOOR.SYS file for this door that uses the caller's alias name rather than their real name.

F3 Profiles

F4 Conference

These two buttons allow you to define security profile and conference access to each door. Changes you make here have the same effect on file area access as changes you make from the Security Profile, Security Override and Conference Area screens.

Menu Hooks

Menu Hooks are set up in the same way as doors. The difference is that Menu Hooks can be added to menus anywhere in *Wildcat!*, whereas Doors are added automatically as numbered selections on the Doors menu.

Off-line mail

The off-line mail settings you define here are used by *wcMAIL* to mail packets for your callers to download and read off-line using a QWK mail packet reader.

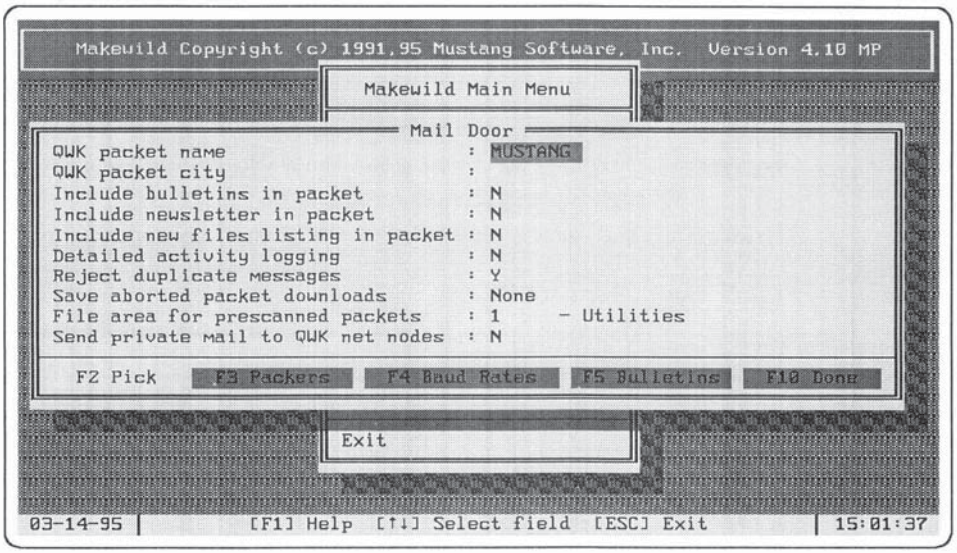
QWK packet name

This is the name of the QWK packet file that *wcMAIL* will create. Many callers use off-line mail on more than one BBS so the name you choose here should uniquely identify your BBS as the originator of the mail packet.

wcMAIL will reject reply packets whose file names are different from the one you specify here. Try to avoid changing the packet name once you have decided on the one you want to use as it could result in your callers losing mail.

QWK packet city

Put the location of your BBS here. Your callers' mail readers can display information about the BBS that created the mail packet, including the name and location of the BBS, the Sysop's name, and the BBS phone number.



wcMAIL uses the information in this screen to generate packet information about MSI HQ BBS, displayed by your callers' offline mail reader.

Include bulletins in packet
Include newsletter in packet
Include new files listing in packet

Yes	No

If you want *wcMAIL* to include your newsletter file, new bulletins or a list of new files in your callers' mail packets, change this option to "Yes". Your callers will still have the option to turn off bulletins, newsletters and new file listings in their own mail packets.

Detailed activity logging

Yes	No

Change this option to "Yes" if you want *wcMAIL* to include detailed information about each message a caller uploads and downloads, instead of the default logging, which records only the number of messages sent.

Reject duplicate messages

Yes	No

Since callers are not always careful to delete old reply packets before they read and answer mail in a new mail packet, the same messages can be uploaded more than once to a BBS. If you want *wcMAIL* to reject duplicate messages automatically, change this option to "Yes".

Save aborted packet downloads

All	Net status	None

Noisy phone lines and other problems can sometimes cause a caller to lose a connection with your BBS during a mail packet download. Change this setting to **All** if you want *wcMAIL* to save your callers' mail packets in a special file area until they have been transferred successfully.

Select **Net Status** if you want only Echomail nodes to be able to save packets, or select **All** if you want all your callers to be able to retrieve aborted mail packet downloads.

You must create a file area for prescanned packets, and assign it to *wcMAIL* in the next question, in order to use this feature.

File area for prescanned packets

Default: 1

If a caller has a saved packet waiting, *wcMAIL* will prompt the caller to download or discard the packet. The packet will have been saved in the

file area you select here with a filename matching the caller's user ID and a random password. You should not give access to this file area to any caller, since *wcMAIL* handles the saving and deletion of these files automatically.

You should go to the Sysop file menu periodically and clean out this file area if it starts to accumulate old, abandoned mail packets.

To save on-line time for your active mail users, you can create pre-scanned mail packets for your callers as a system event, by running *wcMAIL* in prescan mode with the following command line:

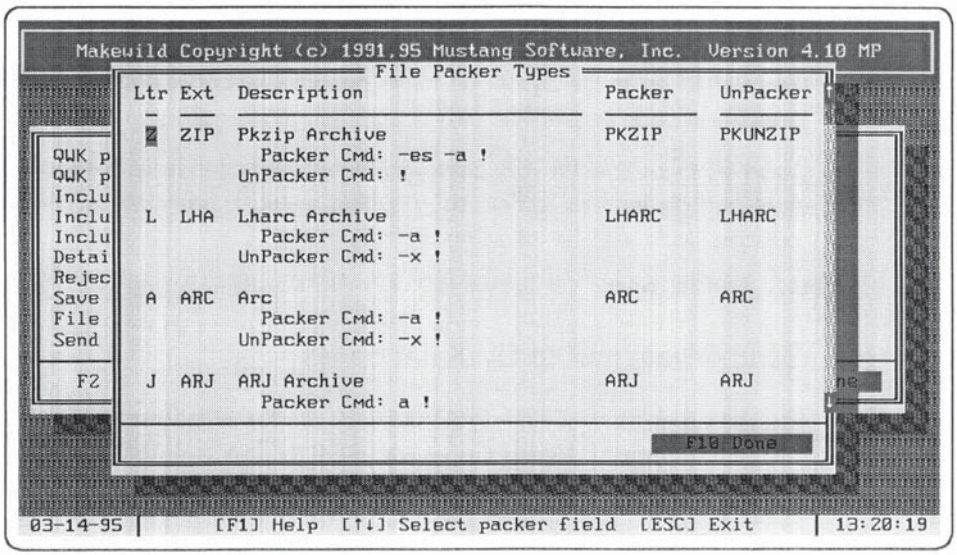
```
WCMAIL [user name or user ID #] /PRESCAN
```

Send private mail to QWK net nodes

This setting determines how wcMAIL sends private messages to users with "net status" security. When this option is set to "No", wcMAIL will check the network user database and will attempt to route private messages back to the node from which mail from this user name was posted. This setting honors the "Export private mail" flag in the user record.

If you prefer to "broadcast" private messages to all nodes in your QWK network, change this setting to "Yes". Use this option with caution — it means that wcMAIL bypasses the routing information in the network user database. All sysops on your echo network will be able to view all private messages echoed from your conferences.

F3 Packers



Packets are delivered as compressed archives containing the numerous smaller files that make up a QWK mail packet. *wcMAIL* will allow your callers to select their preferred archiving utilities from the choices you specify in this list.

The most popular archive utilities are already entered on this screen, with the correct command line parameters. The programs mentioned here are not supplied with *Wildcat!* — you will need to obtain these separately and install them in a directory in your DOS path. Most are available for download from the MSI HQ BBS, and may require payment of a registration fee to the program author.

Type	Filename
ZIP	PKZ204G.EXE
Lharc	LHA213.EXE
ARC	PK361.EXE
ARJ	ARJ241.EXE
PAK	PAK10.EXE

If you want to add other archiving utilities to *wcMAIL*, be sure to read the program documentation carefully for command line parameters. Some tips:

- *wcMAIL* can automatically detect many of the most widely available mail packer file formats when it unpacks replies.
- *wcMAIL* expects to create a packet with the extension .QWK. The archive utility may require a command line switch to override its own default extension.
- The ! (exclamation) character shown in the command lines are placeholders which *wcMAIL* uses to fill in the name of the mail packet when it creates the archive. Be sure to include the ! as the last character on the packer and unpacker command line.
- Some utilities, for instance Lharc, use the same program to create and extract archives, while others, for instance PKZIP and PKUNZIP, use separate programs. Be sure you have all the files you need.
- Earlier versions of PKUNZIP prior to version 2, and the built-in zip/unzip code in some off-line mail readers, may not be able to unpack files created by PKZIP version 2. You may want to use version 1.10 of PKZIP to create packets, and version 2.04g of PKUNZIP to extract them, or offer ZIP version 1 and ZIP version 2 as packer selections in *wcMAIL*.

F4 Baud Rates

As a convenience to callers with slower modems, you may want to limit the size of mail packets depending on their baud rate. This window lets you specify the maximum number of messages per packet and per conference for each baud rate supported by *Wildcat!*.

These are maximum values — callers can set their own preferences in their mail door user settings.

F5 Bulletins

You may have some bulletins you never want to include in mail packets. You can exclude up to 50 bulletins by entering the conference number and bulletin number to skip.

Multi user chat

wcCHAT is the name of the multi-user chat system provided with *Wildcat!* Your users can chat with each other in public or private channels, moderate their own channels (depending on security), or have a private one-on-one talk with another caller.

Maximum size of chat file (in K)

64	256	1024 maximum

This option and the ones that follow allow you to define the basic operational settings for *wcCHAT*.

The chat file is a data file that stores the messages callers send and receive in each channel. It functions in a similar manner to an endless-loop audio tape. *wcCHAT* checks this file at intervals determined by the number of timer ticks you set.

This file is stored in record format, and cannot be viewed from DOS. The chat file has the extension .DAT, and a file name corresponding with the channel file name for each channel you define.

wcCHAT will maintain the chat data file at the size you specify here. The larger the size of the file, the more information it can store before overwriting older messages. The greater the number of nodes accessing the chat file, the larger this file should be.

Timer ticks for chat file (1/18 sec)
Timer ticks for talk file (1/18 sec)

4 minimum	20 maximum

This setting lets you tune the performance of the chat system by regulating how often *wcCHAT* should check the shared chat and talk data files for new input. Chat files record the activity in public and private chat channels, while Talk files record activity in private user-to-user conversations.

Lower numbers mean faster response on small systems, higher numbers avoid deadlocks on large systems when each chat node polls the data file for new input.

Timeout for user input (secs)

15 minimum	30	250 maximum

wcCHAT will not interrupt a caller with incoming messages while he is typing. If the caller stops typing without sending the data, this is the amount of time *wcCHAT* will wait before sending a warning beep and a message to the caller to continue input.

If the caller does not hit a key after the warning, *wcCHAT* waits another 5 to 10 seconds for input, then discards the unsent message and goes back to receiving input from other chat channels.

Moderate which channels

All channels	Private
Public	None

This setting allows you to define public and or private channels as moderated channels. A channel moderator has special privileges in that channel, including being able to regulate the order of discussion by deciding who can talk at any particular time.

Only the designated moderator can turn moderation on or off in a public channel — a user who creates a private channel can moderate their own private channel, if the user's security profile allows him to moderate a channel.

Unless the designated moderator is in the channel, it operates as an open, unmoderated channel. You can designate a moderator for a public channel from the F3 Channels button at the bottom of this window.

Alias allowed in chat

Yes	No

Alias names in are also controlled by security profile — a caller can only use an alias name if both this option and the security profile setting for alias in chat are set to "Yes".

Allow private channels

Yes	No

Change this option to "Yes" if you want to allow your callers to create, name and moderate their own private chat channels.

Allow channel topic change

Yes	No

Change this option to "Yes" if you want callers to be able to change the channel topic for public channels.

F3 Channels

This is where you define information for public chat channels.

Channel name

Each channel you create has a name, visible when callers select the /CHANNEL command in *wcCHAT*. In addition to the public channels you create here, each caller can have his own private channel.

Moderator name

The moderator of a channel has special privileges, and can control who can speak at any particular time. If you want the channel to be moderated by a particular user, enter that user's name or user ID number here.

Channel topic

You can assign a topic to the channel here. The channel topic is also displayed in the list produced by the /CHANNEL command.

Display file

This is the name of the display file that welcomes callers to the channel when they join. This display file should be kept in the path for your conference display files.

Channel filename

This is the file name *wcCHAT* will use, with various extensions, to create and maintain data and log files for this channel.

Action filename

Action words are stored in a data file with this filename. You can define a different action file for each chat channel, if you like.

If you offer multiple language files on your BBS, you can create multiple versions of this action word file. Each action file has the same name, but is stored in the directory path for its corresponding language file. Be careful to define the same words, in the same order, in each language-specific action file so that the translated versions make sense.

Maximum users

2 minimum	250 maximum

This limits the number of callers who can be in a chat channel.

Activity log

Yes	No

Change this option to "Yes" if you want *wcCHAT* to record the time each caller entered and left the channel, the text of any messages they sent, and other activities of interest to the Sysop. *wcCHAT* will automatically add the extension .LOG to the channel filename. Unlike the channel data file, this file will grow indefinitely. Be sure to delete or archive the channel log file periodically.

Profanity filter

Yes	No

There may be certain words you don't want your callers to be able to use in a chat channel. Change this option to "Yes" to prevent callers from using offensive language in chat.

When running *wcCHAT* it uses the channel file name with the extension "BAD" for a list of forbidden words. This is an ordinary text file you can create with a text editor. It follows the same general rules as the other

Wildcat! filter files BADNAMES.LST, BADFILES.LST, BADKEYS.LST, and so on. Each offensive word or phrase goes on a line by itself in the file.

If a caller types a word that is in this list, *wcCHAT* sends a warning message to the caller, deletes the caller's message, and notes the profanity in the channel activity log.

F5 *Security*

Select the security profiles that should have access to this chat channel.

F4 Action Words

Action words are words a caller can type, with an optional target name, to send a prepared response. For instance, if the word "wink" is defined as an action word, a caller can send the message

```
Wink John
```

Meanwhile, other callers will receive the prepared message, for instance

```
Fanny just gave John a wink!
```

John might see something like

```
Hey John, Fanny just winked at you!
```

Press F4 to select an action word file to edit. You can create a new action word file by typing the file name in the top window. Press ENTER to pop up the "Action definition" screen.

Select the action word you want to edit, or press INS to create a new keyword.

Action keyword

This is the action word to define. If a caller types this word, *wcCHAT* will send the **originator**, **target**, **third person** and **no target** strings to the other callers in the channel.

You can use @ macros to insert user names and gender-specific pronouns into the text. The macros @FROM@ and @TO@ substitute the caller's user name in the action text. For instance, the action text

```
@FROM@ just gave @TO@ a big hug!
```

would be translated as

```
Fanny just gave John a big hug!
```

You can give action phrases a custom touch with pronouns such as He and Her, His and Hers. *wcCHAT* uses the gender information in each caller's user record to determine the correct pronoun to use.

The following table shows a list of pronoun macros, and their translated text:

From	To	Male	Female	?
@FHE/SHE@	@THE/SHE@	He	She	They
@FHIS/HER@	@THIS/HER@	His	Her	Their
@FHIM/HER@	@THIM/HER@	Him	Her	Them

The action text

```
@FROM@ scratches @FHIS/HER@ head and looks at @TO@.
```

would be translated to

```
John scratches his head and looks at Fanny.
```

Originator string

This is the text seen by the originator of the action word. For instance,

```
You just winked at @TO@!
```

Target string

This is the text seen by the target of the action word. For instance,

```
Hey @TO@, @FROM@ just winked at you!
```

Third person string

This is the text everyone else in the channel sees. For instance,

```
@FROM@ just winked lecherously at @TO@!
```

No target string

If the originator of the action word fails to specify a target, this is the string everyone in the channel will see:

```
@FHE/SHE@ just winked at @THIM/HER@.
```

Idle screen programs

You can add a menu to *Wildcat!'s* idle screen to run other programs in a DOS shell while *Wildcat!* is waiting for calls. These are called "Idle screen programs".

When you press [ALT] [D] at the waiting for calls screen, *Wildcat!* shells to DOS. If you have defined any idle screen programs, this menu will pop up, allowing you to select the program you want to run.

[F3] Copy

Use the Copy button to copy information about one idle program to a group of other idle programs you select. This is an easy way to create a number of idle programs that share the majority of characteristics, but may have minor differences.

Program Description

This is the name of the program, as you want it to appear on your menu.

Program Path

This is the path and filename of the program you want to execute, along with any command line switches.

Program Password

Enter a password in this field if you want to prevent unauthorized persons from executing an idle screen program.

Language files

You can add multi-language support to *Wildcat!* by creating customized prompt files with *wcPROMPT*, then adding those new prompt files to *MAKEWILD*.

F3 Copy

Use the Copy button to copy information about one language to a group of other languages you select. This is an easy way to create a number of languages that share the majority of characteristics, but may have minor differences.

Language name

This is the name of the language file to use, for instance DEFAULT for the standard *Wildcat!* prompts, SLANG for "Valley Girl" prompts, or FRENCH. *Wildcat!* uses this language file name to create a language data file, and a subdirectory for related display files, prompts, menus, questionnaires and other language-specific files.

Language description

This is the description of the prompt file, as it is displayed to the caller.

Character for yes
Character for no

Many prompts in *Wildcat!* ask the caller to answer yes or no to a question. The words for "Yes" and "No" in many other languages may begin with different letters than in English. If you are offering non-English prompts, specify the letters for yes and no in the language you will be using.

Command line options

You can display a list of command line options for any of *Wildcat!'s* utility programs by typing /? after the name of the program. Command line options for *MAKEWILD* are:

Option	Function	Notes
/R	Read-only mode	Allows you to view but not edit your *MAKEWILD* settings.
/B	Safety backup mode disabled	Use this option with caution! *MAKEWILD* normally makes a backup of its configuration files as you make changes, so that your settings can be restored if they are accidentally erased. Since some of these configuration files can be quite large, you may not always have room for duplicate copies of each one on your hard drive. This switch can help save disk space, but errors that occur may not be recoverable in this mode.

Getting to know your modem

A computer and the supporting peripherals that constitute a bulletin board system represent a chain of equipment that rarely gets to rest. Even while idle, the system is working. Most BBSs are on call twenty-four hours a day, seven days a week. A BBS system's modem is the most important link to the outside world. We strongly recommend purchasing a name brand modem that has proven itself a reliable performer under long term use.

By far the largest proportion of calls received weekly by MSI's Technical Support department have to do with modem setup problems. The simple fact is, most modems leave the factory configured incorrectly for most communications software, including *Wildcat!*. For the software to work properly, it needs to be able to see and control certain critical modem signals which, in most new modems, are disabled.

Add to that problem the fact that modem manuals tend to be written for a technically sophisticated audience, with little explanation of how the various commands affect the behavior and performance of your communications software. This adds up to a big source of frustration and disappointment for beginning Sysops.

wcMODEM takes the hard work out of configuring and testing your modem. The function of *wcMODEM* is to help you load, edit, save, and create modem configuration files, and to load those configuration settings into your modem's permanent "non-volatile memory" or NRAM. This is the same program MSI technical support staff use to create and save the Modem Definition Files (.MDM files) installed with your copy of *Wildcat!*. Chances are, your modem is among those for which a pre-configured MDM file already exists.

We will discuss the operation of *wcMODEM* shortly. First, though, we'll go over some of the most salient points of getting your modem to work with *Wildcat!*.

AT Commands

Most modems available today are nominally "Hayes compatible". This means that they use the standard set of commands and options originally developed for Hayes Modems. You "talk" to your modem using these standard commands. Your modem's manual has a complete list of the options it supports.

"AT" is the Hayes standard command for "ATtention", or "prepare to receive commands". A modem command always begins with "AT", and is followed by the commands you want to send to the modem.

Data Terminal Ready (DTR) — AT&D2

One line on your cable or connection between your computer and modem is DTR, which is used to signal when the two devices can talk to each other. *Wildcat!* controls DTR to begin or terminate a connection with a caller. One of the main uses for DTR is to tell the modem that a caller has pressed G for good-bye and wants to hang up.

The DTR function is controlled either by a switch on the modem or the AT&D command followed by a number. The two most usual DTR settings are "forced" and "normal". Forced DTR means this signal is on all the time, and cannot be controlled by the software. Normal DTR means the signal can be raised and lowered by the software.

Wildcat! needs a normal setting in order to be able to raise and lower DTR to tell the modem when to hang up the phone. The proper modem command is usually AT&D2 which tells the modem to hang up, disable auto-answer and return to command state. Some modems have a DIP switch that controls this function.

S25 register — ATS25=5

This register controls how long the modem will wait before disconnecting when the DTR signal is lowered. A change in the DTR status from on to off that is shorter than the value in S25 is ignored.

This value is usually entered in tenths of a second. This means that a value of 5 (five tenths of a seconds, or half a second) represents the shortest time that DTR must be lowered to have the modem hang up. *Wildcat!* uses a lowering and raising of DTR to end a call, and we expect the modem to respond. If it doesn't respond, this register may be set too high. The time DTR is lowered by *Wildcat!* is configurable, and can be tested using *wcMODEM*.

Carrier Detect — AT&C1

This setting is very important as *Wildcat!* monitors Carrier Detect (CD) to determine if someone is on-line. If this setting is incorrect, the modem reports that carrier is present all the time, and *Wildcat!* cannot tell when someone hangs up. The default for many modems is "CD forced true", and must be changed. CD should be set to reflect the modem's current state or to follow software and never be "forced" or "true".

If *Wildcat!* is started with CD forced true it displays the message "Modem Carrier Detected, dropping DTR - Tries: 1...", and will retry several times. Some modems have a DIP switch that controls this function.

Auto Answer — ATS0 = 0

The preferred method for *Wildcat!* to know when to answer the phone is by monitoring the Ring Detect (RD) line on the connection between the modem and the computer. To allow the software to answer the phone, rather than the modem, the auto answer S-register should be set to "not answer", S0 = 0.

If you elect to let the modem auto-answer the phone, set this register to AT S0 = 1, which means the modem will answer the phone automatically on the first ring. Some modems have a DIP switch that controls this function.

Locked Communications Ports

If you have elected to lock the DTE (Data Terminal Equipment, the link between the modem and the PC) at the initialized rate of 9600 to 115200, you may need to tell the modem that the DTE rate is fixed and cannot

change. This command varies from modem to modem. The USR HST models use &B1 to indicate a locked DTE and &B0 to allow it to change with the actual connect rate (DCE). The Hayes high speed modems do not require any command, while many other V.32 modems require \J0.

Verbal/Numeric Result Codes—ATV1

This AT command or modem switch controls the type of responses the modem sends to *Wildcat!* for connect, ring detected, etc. The two choices are Verbal (also called verbose) or Numeric (also called terse). *Wildcat!* must receive Verbal codes, and sets this by use of the ATV1 command. If a DIP switch controls this item it must be set to Verbal since some modems (the US Robotics HST in particular) will not allow the V1 command to override the switch setting.

Negotiation Progress Messages

In light of all the possible error correction protocols, modulation protocols and data compression protocols available, a wide range of verbose result codes are possible. These include MNP, LAP-M, V.32, V.42bis and many variations.

Although *Wildcat!* has provisions in *MAKEWILD* and .MDM files for recording every possible code representing hardware error control, some modems can report all error control situations with a single result code appended to the connect message. Hayes high speed modems use the S95 register for this function. Setting S95 = 2 appends /ARQ to all connect result code messages if a hardware error control protocol is detected. Other modems may have a similar setting.

DTE vs. DCE Result Codes

When locking your communications port at a higher rate than the connect rate (DCE or Data Communications Equipment), the modem needs to know which baud rate to return in the result code. Most will return the locked DTE rate by default, and need to be told to return the DCE, the actual connect rate of the caller. *Wildcat!* uses this information to calculate

such things as file transfer times and maximum mail packet size, so it is important to set this correctly.

Most V.32bis modems use S95=3 to set DCE result codes. The Hayes high speed modems use W2 while the USR returns the DCE automatically if the rate is locked and &B0 is set.

Command Mode Local Echo — ATE0

The local echo setting determines whether the modem should "echo" commands back to the screen. This setting is functionally similar to the "half duplex" setting in your communication software which affects characters echoed back to you during on-line communication, though the two are not identical — the ATE0 setting only takes effect when your modem is in command mode.

Wildcat! does not require local echo in order to operate properly. The command equivalent is usually set to E0 to disable echo.

Escape Code Operation — ATS2=255

When your modem receives the escape code sequence "+++", it goes into a state called "command mode". In this mode the modem waits to receive commands from you, and will not process incoming or outgoing data. This is understandably not something you want your callers to be able to do to your modem. The S2 register holds the ASCII value of the escape sequence character. The factory default is 43, the plus sign (+). The character indicated in S2 needs to be sent 3 times with appropriate pauses to place the modem in command state. Values above 128 disable the escape sequence.

We recommend disabling the escape sequence since it is not needed by *Wildcat!*, and will prevent troublesome callers from attempting to disable your modem.

How long to wait for carrier — S7=45

This register value determines how long in seconds the modem waits for a carrier to be detected after it has answered a call. It should normally be set to the default of 45 seconds or longer, and must match the "Number of seconds to wait for carrier" setting in *wcMODEM*.

wcMODEM

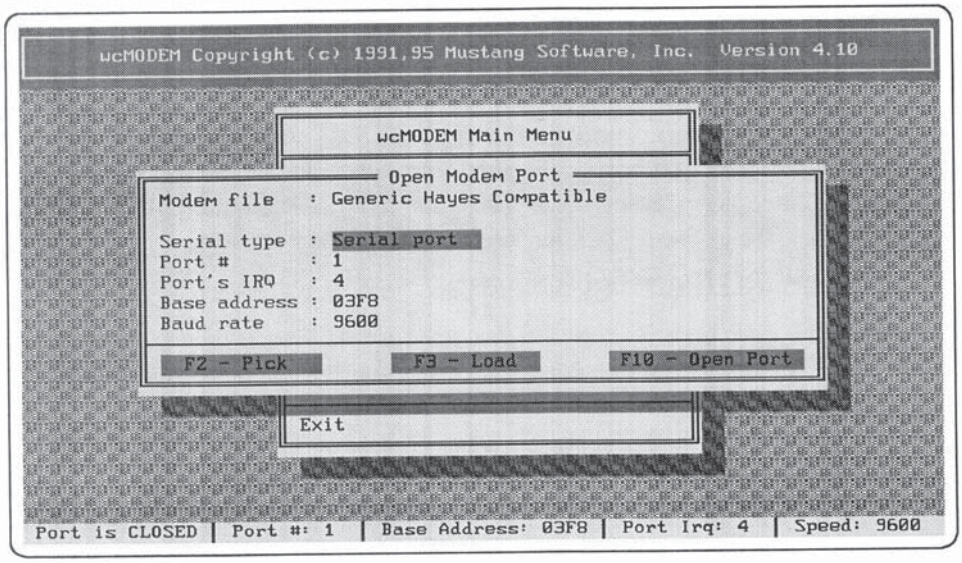
wcMODEM shares a common interface with your other *Wildcat!* version 4 utilities. For a list of command line switches and function key commands, see Chapter 8, *Quick Reference*.

Main Menu

When you first start *wcMODEM*, some of the main menu choices are "grayed out" and cannot be selected. Before you can use these commands, you must first open the modem port. When the port is opened, the other menu selections will be available.

Open modem port

This command establishes communication between *wcMODEM* and your modem or serial port. When you select this command, you will see the following screen:



Before the port can be opened, you must select the port number, IRQ, base address and baud rate.

Modem File

If you have loaded a modem file, the name of the file is displayed here. This field is optional.

Serial Type

Four choices are available: Serial, DigiBoard, Fossil and OS/2. Select the correct serial type for your system: **Serial** if you are using a normal DOS communication port, **DigiBoard** if you are using an intelligent DigiChannel card, **Fossil** if your communication hardware uses a device driver commonly known as a Fossil Driver, or **OS/2 Serial** if you are running *Wildcat!* in OS/2 and wish to use the native OS/2 serial port drivers.

You can find out more about DigiBoard cards and Fossil Drivers in Chapter 7, *Multiline Setup*.

Port

This is the COM port number to initialize, from COM 1 through COM 8. Notice how the IRQ and Base settings change when you enter different port numbers. The correct settings for COM ports 3 through 8 depend on the way you have configured your serial port hardware — refer to the paragraphs below for a discussion of Base Address and IRQ settings, or to the documentation for your communication hardware.

Port's IRQ (Interrupt ReQuest)

COM ports 1 and 2 have standard IRQ assignments, while ports 3 through 8 are non-standard. Unless you are using the Multi-line Platinum version of *Wildcat!*, you *must* select a unique, non-conflicting IRQ for COM ports 3 and higher. Other versions of *Wildcat!* do not allow you to share IRQs between serial ports or with other devices.

Some serial port cards and internal modems allow you to select from a range of available IRQs. You may wish to review the documentation for your computer and any peripherals you have installed to see what IRQs

are available, and suitable for reconfiguration as serial ports. If you are using a non-standard IRQ for the serial port you are testing, enter the value that matches the hardware IRQ setting on the card.

The program MSD.EXE (Microsoft Diagnostics) supplied with recent versions of DOS and Windows, can provide information on which IRQs are available in your PC. The "IRQ Status" question will show all IRQs currently in use on your system. IRQs marked "reserved" can be reassigned to serial ports, if your serial card or internal modem supports these selections.

We recommend *against* using IRQ 2 on 80286 and higher machines, even though this selection is offered on many serial cards and internal modems. The reason is that IRQ 2 is used to handle interrupts from higher numbered IRQs, and may become "invisible" to your machine if it is taken over by another device. While this is unlikely to have a bad effect on your mouse, for instance, it can seriously interfere with serial communications.

DigiBoard and Fossil Driver ports do not use IRQ.

Base Address

Each device in your PC has an "base address" through which it communicates with your PC. As with IRQs, the base address for COM ports 1 and 2 are standard, while others are non-standard. The most common default base addresses for your serial ports are as follows:

Port #	Base addr.
COM1	03F8
COM2	02F8
COM3	03E8
COM4	02E8
COM3 PS/2 only	3220
COM 4 PS/2 only	3228

The base address is hard-coded on most serial cards and internal modems for COM ports 1 through 4. Some cards may allow you to make other selections; if so, the documentation with the card will provide details on these options. If you are using a non-standard base address for the serial

port you are testing, enter the value that matches the hardware base address setting on the card.

DigiBoard and Fossil Driver ports do not use Base Address.

Baud Rate

This is the baud rate, or port speed, at which your PC communicates with your modem. Note that the port speed is **not necessarily** the same as the modem's connect speed, particularly if you are using a high speed modem that uses locked DTE. High speed modems use data compression to increase throughput, and for this to work reliably, the opening baud rate should be set and locked higher than the actual connect speed.

The following table shows the recommended initialization baud rates for a variety of modem speeds. Review your modem manual for the manufacturer's recommendations if your modem speed is not listed here. If you set the port speed incorrectly, *Wildcat!* may not be able to open the port and will return an error message. This error is particularly likely if you use a Fossil Driver or an Intelligent Multiport card with an incorrect port speed. Review the documentation for your serial hardware for a list of correct port speeds.

If you have problems with uploads, you may be setting the port speed too high for your hardware and serial ports to keep up.

Modem Speed	Initialization Baud Rate
300	300
1200	1200
2400 without error correction	2400
2400 with error correction	9600
9600 HST or v.32	19200
14400 HST or v.32bis	19200 - 38400
16800	38400
19200	38400
21600	38400
24000	38400

Modem Speed	Initialization Baud Rate
26400	38400
28800	38400 - 115200

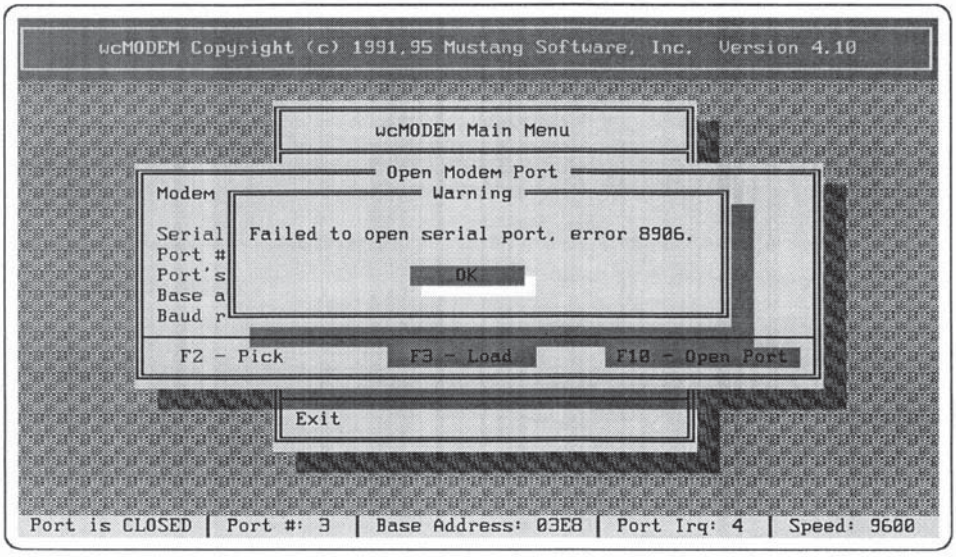
F3 Load

This button allows you to select and load a pre-defined modem configuration (MDM) file. Select the MDM file you want to load from the list.

F10 Open Port

Once you have entered the correct port information, press F10 to open the port. If *wcMODEM* successfully locates and opens the port, the Main menu will reappear with all options available.

If *wcMODEM* is unable to locate a communication port using the information you provided, it will display an error message. For instance, if you select COM port 3, but there is no COM 3 installed on your PC, your screen would look something like this:



If you see an error message, go back to the "Initialize Modem Port" screen and check to see that you entered the port information correctly. If the information is correct and *wcMODEM* still reports an error, check the configuration of your hardware.

The most common problem is two devices with the same IRQ. Check to see if your PC has a COM port on the motherboard that may be conflicting with a serial card or internal modem sharing the same address and IRQ. Disable the on-board serial port if you can, otherwise reassign your serial card or modem to a non-conflicting port and IRQ.

View/Edit MDM files

Most modern modems store their settings in non-volatile memory or "NRAM". This is a special kind of memory that saves its information even when the power is turned off. This means you can send commands to the modem, and then "write" those commands to the modem's permanent memory. Once you have done this, the modem will recall these stored settings and start up with the default settings you have provided.

wcMODEM provides a way to load pre-configured modem settings from a disk file, then write those settings to your modem's NRAM. These MDM files also contain information *Wildcat!* uses to control the modem before, during and after a call. From this screen, you can create, modify and save your own versions of these MDM files.

Modem name

Enter the name of your modem with other descriptive information such as locked rate, and so on.

Type of serial port

Serial	DigiBoard
Fossil	OS/2 Serial
None	

Five choices are available: Serial, DigiBoard, Fossil and None. Select the correct serial type for your system: **Serial** if you are using standard DOS COM ports, **DigiBoard** if you are using an intelligent DigiChannel card, **Fossil** if your communication hardware uses a device driver commonly known as a Fossil Driver, **OS/2 Serial** if you are running *Wildcat!* in OS/2 and wish to use the native OS/2 serial port drivers. The final selection, **None**, is for local connections where a modem is not used.

Communication port number

0	1	99 maximum

Enter the communications port number used for the BBS. Note that port zero is for local logons rather than modem connections.

Communication port IRQ

0	4	15 maximum

For COM ports 1 and 2, the standard DOS value is inserted here. If you are using COM 3 or higher, or a nonstandard IRQ assignment, enter the IRQ used by your communications port.

Communication port base address

$3F8 (COM1)	$2F8 (COM2)
$3E8 (COM 3)	$2E8 (COM 4)

For COM ports 1 through 4, the standard DOS value is already entered here. If you are using a nonstandard base address, enter the value here.

Determine ringing using

Ring Detect	Ring Result	Auto Answer

Three options are possible here: Ring Detect, Auto Answer, and Ring Result. The first option, **Ring Detect**, uses the RI (Ring Indicator) signal from

the modem to determine when the phone rings. This signal is carried on pin 22 of a 25-pin serial cable, or pin 9 of a 9-pin cable.

This is the recommended setting for the majority of *Wildcat!* systems. When *Wildcat!* receives an incoming RI signal, it sends the "Modem Answer String" to answer the call.

Not all hardware is able to provide this signal, so two other choices are offered. The second, **Ring Result**, uses the modem result codes to determine when the phone is ringing. This is suitable for systems which do not supply the RI signal to *Wildcat!*, and is safer and more reliable than Auto Answer. To use the Ring Result option properly, be sure to enter the correct **Verbal Code for Ring** below.

The third choice, **Auto Answer**, allows the modem itself to answer the call. To use this option, you must turn your modem's auto-answer feature ON, either with a DIP switch or a command string, usually ATS0=1.

This is the least desirable option, as it can create security problems when running doors or other external programs. Because *Wildcat!* is not involved in answering the phone, there is a chance that a caller can hang up on a door, and the modem could answer another incoming call automatically —with *Wildcat!* none the wiser.

Be *very* sure that doors terminate immediately upon loss of carrier if you must use auto-answer —or for absolute security, don't run doors on such a system at all.

Determine baud rate using

Result Code 1	Result Code 2
CR.	DTE

Wildcat! has several options for determining the baud rate of an incoming call.

Result Code 1 is normally the preferred method, as *Wildcat!* continues to monitor the UART while waiting for a modem connect code. This allows *Wildcat!* to detect a second ringing condition or loss of carrier, however

a side effect in some systems may cause it to lose some of the CONNECT message text.

Result Code 2 tells *Wildcat!* to stop monitoring the UART and wait for a result code from the modem. The only disadvantage to Result Code 2 is that a disconnected call must wait the entire 45 seconds to time out before *Wildcat!* will recycle. We suggest that you begin by using Result Code 1, and switch to Result Code 2 if *Wildcat!* has problems determining connect rates.

To use Result Code 1 or Result Code 2, you must enter the connect result codes in the table of **Baud Rates and Connect Strings** on the last page of the screen.

```
wcMODEM Copyright (c) 1991,95 Mustang Software, Inc.  Version 4.10
                    View/Edit MDM Files
              Baud rates and connect strings
Baud rate # 1 : 300      Connect string : CONNECT
Baud rate # 2 : 1200     Connect string : 1200
Baud rate # 3 : 2400     Connect string : 2400
Baud rate # 4 : 4800     Connect string : 4800
Baud rate # 5 : 9600     Connect string : 9600
Baud rate # 6 : 14400    Connect string : 14400
Baud rate # 7 : 19200    Connect string : 19200
Baud rate # 8 : 38400    Connect string : 38400
Baud rate # 9 : 57600    Connect string : 57600
Baud rate #10 : 115200   Connect string : 115200
Baud rate #11 : None     Connect string :
Baud rate #12 : None     Connect string :
Baud rate #13 : None     Connect string :
Baud rate #14 : None     Connect string :
Baud rate #15 : None     Connect string :

F2 Pick        F3 Load        F4 Save        F10 Done

Port is OPEN | Port #: 2 | Base Address: 02F8 | Port Irq: 3 | Speed: 9600
```

Carriage Return (CR) is the third option for determining the connect speed. This means the caller must enter one or more carriage returns or spaces after connection in order for *Wildcat!* to determine the baud rate.

The last choice is Data Terminal Equipment (DTE) which indicates that the connection rate is always the same as the DTE speed specified in the next question. This choice is used with Packet Switched Networks or PADs. The PAD supplies the standard RS-232 signals to *Wildcat!* and raises CD (Carrier Detect) when a PAD caller wishes to connect. *Wildcat!* watches for the CD signal, and makes the connection at the DTE rate specified by the DTE port setting.

Initialize port at what baud rate

Minimum 300	9600	Maximum 115200

The baud rate for setting NRAM should reflect the highest rate supported by your modem. If your modem is capable of 9600, 19200 or 38400, you have the choice of opening the port at any supported speed, but may want to use a lower speed to accommodate doors that are unable to support 19200 or 38400.

In theory, the higher the speed used, the faster the transmission will be, especially if you lock the DTE rate (see below). In practice, however, extremely high port speeds may not provide the extra throughput you expected.

This is partly because most files that are transmitted on a BBS are already compressed, so the data compression built into high speed modems has little effect on throughput. Not all hardware can keep up with extremely high port speeds and only the fastest PCs are capable of sending and receiving reliably at a port speed of 57600 baud and higher. The result will be dropped characters and file transfer errors.

The effect is even more pronounced if you run *Wildcat!* in a multitasking environment, or if you load TSRs and device drivers, that interfere with communications I/O. Serial port cards and internal modems that do not use a high speed buffered UART such as the NS16550 are especially prone to dropping characters if the port speed is too high.

Real world experience demonstrates that the majority of high speed modems function most reliably with a port speed no higher than 38400 baud, regardless of the vendor's claims of higher speed and throughput.

Lock DTE at initialization baud rate

Yes	No

Most high speed modems (9600 baud and faster, and some 2400 baud modems with error correction and hardware data compression) function best when the DTE (Data Terminal Equipment) speed is locked at a higher speed than the modem connect speed. This allows the modems to negotiate the highest connect speed possible, while maintaining the link between the computer and the modem at a constant higher speed.

With the DTE locked at a higher speed, it is actually possible to attain transfer rates *higher* than 100% efficiency. For instance, under normal conditions a 14400 baud modem can often achieve somewhere in the range of 1600 to 1700 characters per second during transfers of compressed files, with the DTE locked at 38400.

You should only change this setting if your modem runs only at speeds of 2400 baud and lower, and does not support locked DTE.

Use CTS/RTS flow control

Yes	No

A real-life example of flow control might be a conversation on a CB Radio channel, where each party indicates he has finished speaking by saying "Over". In this way, the message comes through without interference. Communication devices must also signal each other when they are ready to send and receive data, so that both systems remain synchronized and no data is lost.

CTS/RTS (Clear To Send/Ready To Send) flow control is also known as "hardware handshaking" because the modems themselves control the flow of data. This is the fastest and most reliable method of flow control, and

almost all high speed modems support CTS/RTS, so the recommended setting for such modems is **Yes.**

If your modem expects to use CTS/RTS flow control, answering **No** will probably result in data loss and file transfer errors. Review your modem manual or consult the modem manufacturer if you aren't sure if your modem can use CTS/RTS.

High-speed or Error-Correcting modems communicate with *Wildcat!* at the hardware level via the CTS/RTS interface. The modem cables used in conventional modems (for instance 1200/2400, non-MNP units) may not carry all the necessary signals (pins could be missing). The wrong cable could prevent *Wildcat!* from detecting the CTS signal — ignoring the modem's hardware-handshaking capabilities.

When in doubt, use a serial cable with all 25 pins connected (a flat ribbon, 25-conductor cable). Users with 80286 or 80386/486 class machines may use a 9-pin to 25-pin adapter with all 9 lines connected, attached to a 25-conductor cable as described above.

Take modem off hook on exit (busy line)

Yes	No

When you exit *Wildcat!*, the normal practice is to "busy out" the phone line by sending the "off hook" string so that incoming calls receive a busy signal rather than continuous ringing. Answer **Yes** if you want your callers to hear a busy signal when the BBS is down.

Note that if your modem speaker is turned on, you may briefly hear a dial tone as the modem picks up the line — exactly as if you picked up the handset on your phone to leave the phone off-hook. If you find the sound annoying, turn off the modem speaker by changing the "off hook" string to ATM0H1.

Number of seconds to wait for carrier

1	45	255

This is the amount of time *Wildcat!* will wait after answering a call, until a carrier signal is established. The normal value is 30 to 45 seconds. If you have a lot of overseas callers, or if your modem is slow to establish a connection, try increasing this value.

This setting is affected by the modem's internal time-out setting, in the S7 register. Be sure that when you increase the time-out in *wcMODEM*, that you also increase the time-out stored in your modem's settings, or the modem will hang up before *Wildcat!* does.

Milliseconds before answering

1 min.	1000	65535 maximum

This is the amount of time *Wildcat!* waits after detecting a ring signal before answering the phone. The normal value of 1000 milliseconds (1 second) is adequate for most systems.

The **Modem Timing Tests** section of *wcMODEM* can help determine the proper delays for this and the following functions.

Milliseconds to lower DTR for hang-up

1 min.	2000	65535 maximum

This is the amount of time *Wildcat!* holds the DTR (Data Terminal Ready) signal low when it hangs up the phone. Most modems hang up when DTR is lowered for a specified minimum period of time, usually 500 milliseconds. The default value of 2000 milliseconds (2 seconds) virtually guarantees that the modem will disconnect when *Wildcat!* drops a call.

Milliseconds to delay before prelog

1 min.	1000	65535 maximum

After a modem answers the phone, it may take up to a few seconds for it to establish a connection and test for various hardware protocols and compression methods. During this delay period, the modem stores any incoming characters in a buffer, but it may lose information that is sent immediately after carrier is detected.

Wildcat! can delay sending its first display file, PRELOG.BBS, for the amount of time specified here. The default of 1000 milliseconds (1 second) is usually ample.

Milliseconds to wait for result code

1 min.	2800	65535 maximum

When *Wildcat!* sends a command to the modem, it expects to receive a confirmation or some other informative response. These commands include initialization strings, reset strings, and verbal result codes. This field allows you to set the maximum amount of time *Wildcat* should wait for confirmation before reporting an error.

Some modems take considerably longer than others to respond to commands, so the range of values that can be entered here is quite large. The default value here is 2800 milliseconds (2.8 seconds), while the maximum is 65535 milliseconds (over 65 seconds).

Milliseconds between command strings

1 min.	2000	65535 maximum

This setting controls how long *Wildcat!* delays between sending command strings to the modem. An example is the delay between the reset string and initialization string after each call. The default of 2000 milliseconds (2 seconds) is adequate for most modems.

Trigger level for receive FIFO

1	4
8	14

This setting is only used if *Wildcat!* detects a 16550 UART in your serial port or internal modem. This high-speed serial port chip has a 16 character buffer, and the trigger level indicates how many characters need to be in the buffer to begin processing the buffer contents, and then begin buffering a second group of characters.

The default is 4 characters, which is a good starting point for most systems. The higher the value, the less processing needs to be done by the I/O channel. We recommend systems running under DESQview set this to 4 to minimize processor activity. If you have problems with uploads even though you have a 16550 UART, you may need to reduce the trigger level to 1 to prevent lost characters during transfers at high speeds.

Trigger level for transmit FIFO

1	4
8	14

This field controls how many characters are sent during downloads by *Wildcat!* for each interrupt. Like the previous setting, your serial port or modem must have a 16550 UART to enable this feature.

This setting is absolutely required for operation under Windows and OS/2 — since each system setup is different, try each value in turn to find the best one for your system. As a general rule, higher settings are likely to be more efficient for Windows and OS/2, while lower settings will result in the best performance under DESQview.

Verbal code for RING

Default: RING

Almost all modems use a form of this word to indicate the phone is ringing. Note that the word RING is a proper choice for modems that have any form of the word RING in their result code, including RINGING and RING DETECTED.

Modem error correction codes

Default: ARQ | MNP

These are the messages from your modem that will signal an error-free connection to *Wildcat!*. If your modem supports hardware error correction such as MNP (Microcom Networking Protocol) or ARQ (Automatic Repeat reQuest), or others such as LAPM, or V42, it appends this text, or something like it, to the baud rate result code when it makes a successful connection with another error correcting modem.

If *Wildcat!* gets an error-free connection, it offers additional file transfer protocols to the caller: Ymodem/G and Xmodem-1K/G. For *Wildcat!* to recognize error correction, you need to enter the error correction result code or codes here. If more than one error correction result is possible, depending on the type of connection, enter all the possibilities, separated by a "pipe" character (shift-backslash).

If your modem does not support hardware error control, you should leave this field blank.

Modem on hook string (ready for calls)

Default: AT H0

Going "on-hook" is equivalent to "hanging up the phone". This string is used to hang up the modem after it has been taken off-hook with the command below.

Modem off hook string (busy)

Default: AT H1

When you exit *Wildcat!*, the normal practice is to "busy out" the phone line so that incoming calls receive a busy signal rather than continuous

ringing. If you want your callers to hear a busy signal when the BBS is down, enter the modem's "off-hook" string here.

Note that if your modem speaker is turned on, you may briefly hear a dial tone as the modem picks up the line — exactly as if you picked up the handset on your phone to leave the phone off-hook. If you find the sound annoying, turn off the modem speaker by changing this string to ATM0H1.

Modem initialization string

Default: blank

The initialization string is sent by *Wildcat!* after each call following the reset command (see below). The initialization string is used to restore your modem to its correct settings. The contents of your initialization string will depend on how much information is stored in your modem's NRAM or permanent memory. Modems without NRAM should always use an initialization string.

Even if your modem supports NRAM, you may want to enter an initialization string. The required settings will be stored and executed by the reset command, but not all modems with NRAM reset reliably, and some do not store the complete settings.

Some fairly typical parameters are:

Command	Function
M0	Turns off the modem speaker.
Q0	Displays result codes.
E0	Don't echo result codes to terminal.
S0=0	Disable auto-answer and let *Wildcat!* answer it.
S2=255	Disable +++ as the modem escape sequence.
X1	Extended result codes, to send baud rate information.
&C1	Carrier reflects reality rather than forced on.
&D2	DTR reflects reality rather than forced on.

Modem answer string

Default: ATA

This is the command *Wildcat!* sends to the modem when it detects an incoming call, either through the RI (Ring Indicator) signal, or the RING result code from the modem. Almost all modems answer with the default "ATA" command.

Note that if you use Auto-Answer to pick up the phone, *Wildcat!* will ignore any setting in this field.

Modem caller ID string

Default: Blank

If your modem supports the Caller ID or Automatic Number Identification (ANI) services from your phone company, you can capture the originating phone number for any incoming call in the activity log and in the @CALLID@ macro.

Caller ID modems normally send the originating phone number along with other information between the first and second ring signals when a call comes in. The correct string to enter here is the one that precedes the phone number reported by the ANI service.

For instance, a Supra modem with Caller ID support sends the following Caller ID result codes:

```
DATE = 0526
TIME = 1021
NMBR = 8055551212
```

So, if you have a Supra modem, the correct string to enter in this field to capture the caller's originating phone number would be

```
NMBR =
```

Review your modem manual for the exact caller ID result codes — your modem may not follow the pattern illustrated in this example.

Modem NRAM settings

Modem reset command

Enter the command to reset your modem to the factory defaults. Most modems use AT &F for this function. This command is sent to the modem prior to the setup strings to ensure that all settings begin with known values as specified in the manual.

Modem setup string #1

This is the first of three lines available for entering commands to be sent to the modem for NRAM definition. The modem commands required here are those that need to be different from the factory defaults for *Wildcat!* operation.

Modem setup string #2

Each setup line can contain as many settings as desired.

Modem setup string #3

Any setup line may be left blank once all needed settings are entered.

Write modem NRAM string

Enter the command used to write or save the current settings to your modem's NRAM. This is usually AT &W or AT &W1. This line is sent by *wcMODEM* after sending the setup strings, and stores the settings in modem memory (NRAM).

Dump modem NRAM string

This command is used to display your modem's NRAM settings on screen. This command varies from modem to modem, but many follow the Hayes setting of AT &V. The US Robotics makes use of AT I4 for this function.

Baud rates and connect strings

Baud rate ### Connect string

This table of baud rates and connect strings is used by *Wildcat!* to determine the baud rate of an incoming call. These entries are only used if you determine baud rate by result codes (above).

Almost every modem manual contains a table of result codes in both numeric and verbal format. Enter the baud rates and verbal result codes supported by your modem in this table. You can enter up to 20 Baud Rate/Connect String messages.

Notes on modem

Line 1 - Line 3

You can use these three lines for notes about the modem — for example DIP-switch settings, or notes explaining the reason for some of the startup settings.

F3 Load

Use the Load button to load a prepared .MDM file from disk. Select the name of the file to load from the Load Modem File window.

F4 Save

Use the Save button to save the current settings to a custom .MDM file. Enter the name of the file to save in the Save Modem File window.

Write Nonvolatile Memory (NRAM)

To save the parameters you entered in the previous screen in your modem's permanent memory (NRAM), you must first use the **Open the Modem Port** command from the main menu to establish communication between the computer and your modem.

You should then load the predefined modem definition file (MDM file) for your modem, and make any necessary changes to the port information on the screen.

You can then use the **Write Nonvolatile Memory** command to write this information to your modem. A window will open showing each command sent, with your modem's response.

Show Nonvolatile Memory (NRAM)

This menu choice allows you to view the modem's internal settings. As with the "Write Nonvolatile Memory" command, you must first open the communication port and load an MDM file. The following illustration shows a sample of what this screen might look like — keep in mind that different modems will present the information in different formats.

```
Sent: AT &V
ACTIVE PROFILE:
B1 E1 L1 M1 N1 Q0 T V1 W2 X4 Y0 &C1 &D2 &G0 &J0 &K3 &Q5 &R1 &S1 &T4 &X0 &Y0
S00:000 S01:000 S02:043 S03:013 S04:010 S05:008 S06:004 S07:050 S08:002 S09:006
S10:014 S11:095 S12:050 S18:000 S25:005 S26:001 S36:007 S37:000 S38:020 S44:020
S46:138 S48:007 S95:000

STORED PROFILE 0:
B1 E1 L1 M1 N1 Q0 T V1 W2 X4 Y0 &C1 &D2 &G0 &J0 &K3 &Q5 &R1 &S1 &T4 &X0
S00:000 S02:043 S06:004 S07:050 S08:002 S09:006 S10:014 S11:095 S12:050 S18:000
S36:007 S37:000 S40:107 S41:011 S46:138 S95:000

STORED PROFILE 1:
B1 E1 L1 M1 N1 Q0 T V1 W0 X4 Y0 &C1 &D2 &G0 &J0 &K3 &Q5 &R1 &S0 &T4 &X0
S00:000 S02:043 S06:002 S07:050 S08:002 S09:006 S10:014 S11:095 S12:050 S18:000
S36:007 S37:000 S40:107 S41:003 S46:138 S95:000

TELEPHONE NUMBERS:
0=                                      1=
2=                                      3=

OK
-- Completed --
 Test com leted - Press F10 for menu  [↑↓] Scrollback          CD MR DTR CTS RTS
```

Modem Timing Tests

Use this command to perform timing tests on a number of modem operations. These tests use the same code as *Wildcat!*, and give extensive insight into the timing and modem responses *Wildcat!* must deal with when making a connection using your modem.

The first test is the Modem Delay test. *wcMODEM* first sends an ATZ command to reset the modem, and records the amount of time before the modem responds with "OK".

The timing for your modem may vary, not only from modem to modem, but even on the same modem depending on the system activity. For example, under a multitasking program like DESQview the timing measurement may depend on other system activity.

The next test is the Modem Answer test. This test starts automatically as soon as you press a key (or you can abort the answer test with the [ESC] key). *wcMODEM* waits for a call from another modem and provides complete logging of connection activity.

When *wcMODEM* establishes a connection, it sends a "banner" to the remote caller to verify that the baud rates and parity are correct. You can also chat with the remote caller.

After the connection is established and the answer timing tests are completed, *wcMODEM* performs a test of DTR line (data terminal ready) operation. DTR is lowered until carrier is dropped, and *wcMODEM* reports the time required to disconnect this way.

If lowering DTR does not disconnect the call, there is a problem with the setting for either CD or DTR. The correct configuration for these two items is important. Improper settings of either of these could cause the DTR test to fail.

Terminal Mode

MSI Technical Support staff may ask you to run *wcMODEM* and go into terminal mode so they can call and test your system. By observing the re-

sults on your screen, you can help with the diagnosis of any modem problems encountered.

wcMODEM's terminal mode is a simple terminal program designed to help you discover modem problems in a controlled testing environment. As the following illustration shows, the terminal mode has basic commands such as "Hang-up", "DOS shell", "Answer" and "Reset", and it displays the status of certain serial port signals, all on the bottom line of the screen.

It does not contain a phonebook, terminal emulations other than ANSI, or any of the other usual functions of a real communications program, so if you want to make outgoing calls, you'll need to issue the dial command directly to the modem. For instance, to dial the MSI HQ BBS from *wcMODEM*'s terminal mode, type:

```
ATDT1-805-873-2400 [ENTER]
```

The terminal screen has a scrollback buffer so you can review data sent and received during the current terminal session. Press your [↑] key to scroll back, [ESC] to return to the terminal screen.

UART identification test

You can use this test to identify the kind of serial port chip or UART (Universal Asynchronous Receiver- Transmitter) installed in your computer or internal modem.

The 8250A chips were used on older PCs and add-on cards, and can be positively identified. The 8250B and newer 16450 chips carry the same identification information and cannot be distinguished. The 16450 is commonly used on newer ATs and in VLSI chips that integrate multiple system components. The 16550 UART, which adds input buffering, is used on most high speed internal modems and upgraded serial port cards.

After completing the identification, *wcMODEM* performs three UART tests, and displays its results on the screen.

Warning: The program routines used in the UART test may terminate some Arcnet server connections, lock up your PC, or disable your mouse. This does no permanent harm to your PC, and is curable simply by rebooting.

Serial port IRQ test

This test attempts to locate all the COM ports and IRQs on your PC, then displays the results on the screen.

As with the previous test, the program routines used in the Serial Port IRQ test may terminate some Arcnet server connections, lock up your PC, or disable your mouse. This does no permanent harm to your PC, and is curable simply by rebooting.

Adding files to your file database with *wcFILE*

The next step in building your *Wildcat!* BBS is to create a file database. The file database contains information about files that are available for your callers to download. You can group files by application, topic, or by customer. Up to 32,760 file areas are available for you to work with.

The file database contains information about the file name and location on disk, a description of the file's contents, and statistical information including the uploader's name, the number of times the file has been downloaded, and so on.

Before a caller can download a file from *Wildcat!*, the file information must be entered into the *Wildcat!* file database. This is a security feature to prevent people from downloading files on your system that should not be accessible. There are several ways to add files manually to your file database. First, you can log on and upload the files locally from the file menu. Or, you can add files from the Sysop menu file database editor. Finally, you can call your BBS and upload files by modem, using a file transfer protocol. While these three methods may work for a few files, adding a large number of files this way can quickly become tedious.

The program *wcFILE* is designed to automate the procedure of adding files to your BBS. It will search any drive on your computer or network for files, add the files to the file areas you specify, and import descriptions automatically at the same time if you wish, either from a text file prepared beforehand, or from the standard description files contained within many compressed file archives.

You can also use *wcFILE* to update existing file descriptions, or to mount and unmount a CD-ROM volume. This update procedure allows you to use several CD-ROMs on your BBS, even if you only one CD-ROM drive. You can also use the update procedure to freshen your file descriptions and correct spelling errors.

Creating file areas in MAKEWILD

Your first step, if you have not already done so, is to run *MAKEWILD* and create file areas. The "General Information" screen allows you to define the total number of file areas — make sure this number is large enough to accommodate all the file areas you want to create. Then go to the "File Areas" to enter the file area name and disk path for each file area you want to create.

Note that you need not create a separate file area for each subdirectory on a CD-ROM, nor do you need to create different file areas for disk files and CD-ROM files.

File area name

You can assign file areas in any way you want, depending on how you plan to use your BBS. For instance, you might have file areas for program updates, with a separate file area for each product. Or you can offer shareware programs grouped by category, for instance "Windows desktop utilities" or "DOS program editors". Give some thought to the way you organize your file areas. Try to make it easy for your callers to find the file areas, and files, they're looking for.

File area path

Each file area is linked to a path on your hard drive or CD-ROM, although the files themselves can be stored anywhere on your system. If the path does not exist, *MAKEWILD* will create it for you. Be sure not to link two or more file areas to the same directory on disk, and don't forget to check your conference and security profile definitions to assign List and Download access to the file areas you define. In most circumstances, it is best not to allow callers to download files from your upload area, or upload files directly into your download areas.

File locations

Files are usually, but not always, located in the path for the file area defined in *MAKEWILD*. You have the option, however, to store a file any-

where on disk, or on a CD-ROM, by adding the file's "stored path" to that file's database record.

In the file area path

Under normal circumstances, you would store files associated with a file area in the subdirectory assigned to that file area. When you move a file from one file area to another from the Sysop menu file database editor in *Wildcat!*, the file will be copied automatically from its current file area path to new one you select.

Using the stored path

There may be cases where you don't want to store all the files for a particular file area in the file area path. For instance, you may want to make use of additional storage capacity on other drives or partitions, or on network volumes. Or you may want to add files from a CD-ROM to your existing file areas. If the "stored path" is filled in, *Wildcat!* will look for the file in the path you specify, rather than in the path defined for that file area as a whole.

wcFILE will fill in the stored path automatically when you add CD-ROM files to your *Wildcat!* file areas. This allows you to group files together without having to create duplicate file areas for your hard drive files and your CD-ROM files.

The On CD flag

The "On CD" flag, together with two *MAKEWILD* options, determines how *Wildcat!* handles a file when a caller requests a download. These settings are designed mainly to let multi-line systems operate more smoothly with CD-ROM drives, and have little effect on single-line systems. The *MAKEWILD* options are "Copy files from CD-ROM before transfer" and "CD-ROM Changer Tables".

If "Copy files from CD-ROM" is set to Yes, and a file requested by a caller is marked "On CD" in the file database, *Wildcat!* will copy the file to a

temporary directory on the hard drive before beginning the download. If the drive letter

If the drive letter within a stored path matches one of the drives in the CD-ROM Changer Table, *Wildcat!* will lock out all other drive letters associated with that table entry while the file is being accessed. This prevents excessive "shuffling" of CDs when several callers try to access them at the same time.

File descriptions

You have the option to store a 60 character short description plus a 72 character by 15 line long description for each file in the database. *Wildcat!* uses these file descriptions for two purposes. Callers can list files to the screen, and view the description for each file before making a decision to download it. They can also search file descriptions for specific keywords, to find all files matching "windows" or "sports".

wcFILE will import descriptions for any number of files automatically from a properly formatted text file, or directly from the standard description files FILE_ID.DIZ and DESC.SDI, contained in many compressed archive files.

From a CD-ROM

Many CD-ROM disks are "BBS-ready" — meaning that each subdirectory on the CD has a text file listing the files in the subdirectory along with the descriptions of each file. You usually have the choice of several different listing formats, and there may even be a directory containing all the description files for each subdirectory, along with a master file containing listings for the entire disk.

If you are installing files from a CD-ROM into *Wildcat!*, it is worth your time to check for description files on the disk. If the documentation for the CD does not give specific information, look on the disk for directories called "FILES", "TEXT" or "DIRS". Check each subdirectory for files with names such as FILES.BBS, DIR01.BBS, or DIR.001 (with numbers corresponding to the file area on the CD). If you don't find any description files on the disk, check with the CD vendor to see if descriptions are available

for your CD. If none are available, you can still create description files yourself, or extract descriptions directly from the archives.

Capture files and ALLFILES lists

When you download files for your BBS from online services or other BBSs, you can use the capture file from your online session as raw material for *wcFILE* to import the descriptions, so long as the format of the listings in the capture file follows the general description file format *wcFILE* expects. Capture files may require minor editing to remove "welcome" screens and other unrelated information.

The same goes for ALLFILES listings from other BBSs. *wcFILE* will match up file names on your disk with descriptions from the list, and import descriptions for any files that match the list. *wcFILE* can recognize file names and descriptions from most other types of BBS software's file listing format when that information is saved as a text file.

Creating your own description files

You can create your own description files if you like, by using the DOS "DIR" command, and redirecting output to a text file. DOS versions 6 and higher have some options that help you list the files in the proper format for "raw material" as description files. If you're using an earlier version of DOS, some editing will be necessary.

The DOS command

```
DIR > FILES.LST
```

will create a text file in the current directory, looking something like this:

```
 Volume in drive F is BBS
 Volume Serial Number is 3100-6BC2
 Directory of F:\WILDCAT\XFER\TD-PROGS

NEWFILES LST        51,333 10-03-94   8:00a
ALLFILES LST       575,332 10-03-94   8:02a
ALLFILES ZIP       218,790 10-03-94   8:02a
NEWFILES ZIP        19,592 10-03-94   8:03a
WCLIST   TXT       104,929 10-03-94   8:10p
FILES    LST             0 10-04-94   3:39p
QM46TD-2 EXE       386,608 07-15-94  12:46a
WCLIST   BAK       145,360 07-05-94   7:44a
OLX-TD   EXE       207,921 01-04-92   2:10a
WCLIST   ZIP        35,645 10-03-94   8:10p
TEMP     DOC         6,656 09-14-94   7:24p
MSISTAFF GIF       321,082 06-22-94   3:57p
FILELOCK DAT            26 05-16-94   9:18a
WC26TD-2 EXE       348,570 11-03-92  12:26a
WC26TD-2 OLD       358,326 06-29-94   1:45a
WC26TD-1 OLD       458,736 06-29-94   1:45a
WC26TD-1 EXE       434,618 11-03-92  12:26a
QM46TD-1 EXE       385,607 07-15-94  12:46a
SCN115B  EXE       269,785 05-28-94  10:11p
       19 file(s)      4,328,916 bytes
                      67,268,608 bytes free
```

To use this file, you will need to open the file with a text editor, and delete the first few lines of the file showing the volume name, serial number and directory. Also delete the file size, date and time information, and type in your own descriptions, and remove the last two lines showing the number of files in the directory and the number of bytes on the disk. You can then go ahead and type in the descriptions beside each file.

Be sure to start the description text on the same line as the file name, starting each description from the same column. Use spaces rather than tabs to align the columns. A properly formatted description file would look something like this:

```
NEWFILES LST     A list of all new files on this BBS less than 30 days old
ALLFILES LST     A list of all the files on this BBS (text format)
ALLFILES ZIP     A list of all the files on this BBS (ZIPped to save space)
NEWFILES ZIP     A list of all new files on this BBS (ZIPped to save space)
WCLIST   TXT     Lots of good WILDCAT! BBSs to call.
QM46TD-2 EXE     Qmodem Test Drive version 4.6. Disk 2 of 2 (need both files)
```

With DOS version 6 and higher, you can create a "bare" listing, consisting of file names only. The proper command is:

```
DIR /B > FILES.LST
```

This command produces a listing that looks something like this:

```
NEWFILES.LST
ALLFILES.LST
ALLFILES.ZIP
NEWFILES.ZIP
WCLIST.TXT
QM46TD-2.EXE
WCLIST.BAK
OLX-TD.EXE
WCLIST.ZIP
TEMP.DOC
MSISTAFF.GIF
FILELOCK.DAT
WC26TD-2.EXE
WC26TD-2.OLD
WC26TD-1.OLD
WC26TD-1.EXE
QM46TD-1.EXE
SCN115B.EXE
FILES.LST
```

Notice that this listing has a period instead of one or more spaces to separate the file name and extension. Don't worry — *wcFILE* can handle either listing format.

Using FILE_ID.DIZ and DESC.SDI files

Many shareware authors have adopted a standard description file format, and include descriptions within the distribution archives for their files. Two standard description files are commonly used: FILE_ID.DIZ and DESC.SDI.

DESC.SDI is a single line description, up to 60 characters in width. FILE_ID.DIZ is a multi-line description, up to 40 characters in width, and as many as 15 lines deep. *wcFILE* can extract these two files from ZIP and LZH archives, and import the information automatically.

This has the advantage of using the description written by the author of the shareware program, rather than a user's description of "great game" or "cool, check out this neat program".

Both *Wildcat!* and *wcFILE* can be set up to look for and import FILE_ID.DIZ and DESC.SDI description files. *Wildcat!* can import this information after a caller uploads a file, and you can find out more about that on page 442.

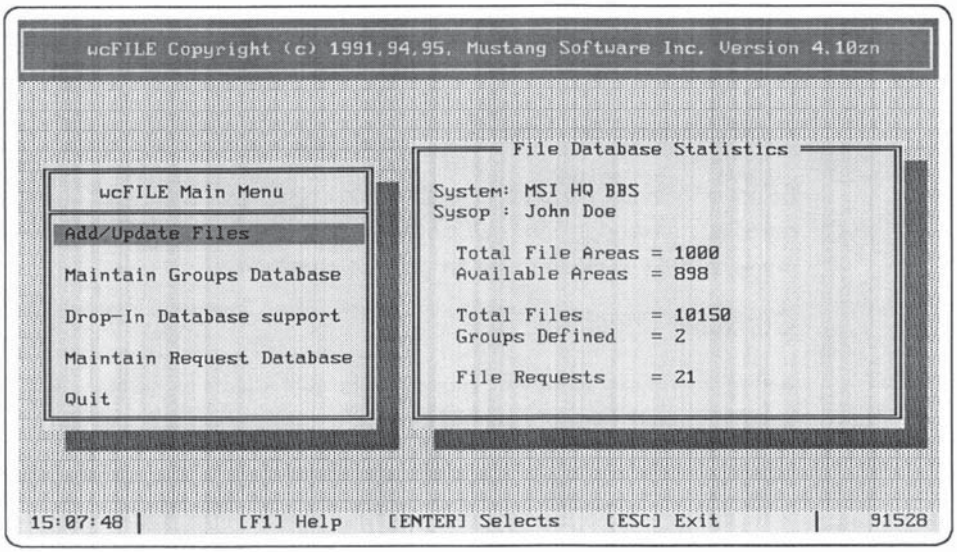
wcFILE will also import FILE_ID.DIZ and DESC.SDI as it imports files. If you prefer to use the embedded description files, if they exist, rather than preparing a description file or typing in file descriptions manually, select "DIZ/SDI" as the description type when you run *wcFILE*. We'll show you how to do that in the next section.

Using *wcFILE*

Always change to your WILDCAT home directory (normally C:\WILDCAT) before running *wcFILE*. To start *wcFILE*, type

```
wcFILE ENTER
```

The main menu shows a list of options:



Add/Update Files

Select this menu option to add files to your BBS from your hard disk or CD-ROM. Use this option also to update your existing files with new information.

To save your settings from this screen to a file you can recall later, press ALT S. To reload a prepared settings file from disk, press ALT L. When

you are finished making your selections, press F10 to return to the previous window to begin processing.

Add/Update Process Mode

This item has two options: Add Files and Update Files. Press F2 to pop up a selection list.

Use "Add Files" to add new files to your file database from a hard drive or CD-Rom.

Use "Update Files" to modify information about files that already exist in your database.

Add/Update File Area

Select a Wildcat! file area to modify. Press ENTER to pop up a list of the file areas you created in MAKEWILD. Press F3 to sort the list alphabetically by name, and F10 to return to the file processing window.

Duplicate checking

wcFILE has three ways of handling files with identical names: "Current Area", "Current Group" and "All Groups".

Select "Current area" if you want *wcFILE* to skip adding duplicate file names in the same file area, but ignore duplicate file names in other file areas and groups.

Select "Current group" if you want *wcFILE* to skip adding duplicate file names if those files are found in any area within the current group database file.

Select "All groups" if you want *wcFILE* to skip adding duplicate file names if those file areas are found in any area within any group database file. Since *wcFILE* has to open and check multiple database files, this is the slowest mode of operation.

Add Only If Exists

Your description file may contain file names and descriptions for files that do not exist in any of the paths associated with the current file area. If you want to add these files to your database even though they do not exist on disk, select "Yes" for this option.

If you want *wcFILE* to add only those files that are both on the disk and in the description file, change this option to "No".

Stored Path

Wildcat! stores the actual path for a file that is not located in the subdirectory associated with its Wildcat! file area. Change this option to "Yes" if you want *wcFILE* to update the stored path for this file according to the information in the next line.

Scan Subdirectories

If the path you are scanning contains subdirectories with additional files, change this option to "Yes" to include those files.

Strict Path Checking

This option controls how *wcFILE* processes files that are located in a subdirectory already associated with another Wildcat! file area, but are found during the processing of the current file area.

If you want *wcFILE* to add files to the actual file area associated with the directory where the file was found, instead of adding to the file area you are currently processing, set this option to "Yes". *wcFILE* will leave the stored path blank, since the file is already in the correct path for the file area.

If you want *wcFILE* to add files to the current file area, irrespective of whether they are actually located in the path for another file area, change this option to "No." *wcFILE* will use the stored path for the actual location of all the files it processes for this area.

Never Overwrite

The operation of this setting depends on the "Allow upload overwrites" setting in the Security Profile section of MAKEWILD.

If the caller normally has access to overwrite his own uploads, changing the "Never Overwrite" setting in *wcFILE* to "Yes" will prevent the files you process during this operation from being overwritten when the user whose name appears in the "Uploaded by" field re-uploads the same file.

Never Delete

Change this option to "Yes" if you want to prevent anyone frome deleting this file from the Sysop menu File Edit screen or from wcPRO.

Use caution when performing mass file deletions from other applications —they many not honor this setting.

Don't Charge

Use your spacebar to toggle this processing option on or off. *wcFILE* will only apply this processing option to your files if it is toggled on.

Change this option to "Yes" if you do not want Wildcat! to deduct the cost for downloading this file from a caller's account balance. This option overrides the "File cost" setting in the file database record.

Set this option to "No" if you want the cost of this file, if any, to be deducted from the user's account balance when the file is downloaded.

File On CD

If you are adding files from a CD-ROM and if you want to make use of the "Copy file from CD-ROM" and "CD-ROM changer tables" options in MAKEWILD, change this option to "Yes".

Leave this option set to "No" if you are adding files from a hard drive.

Free Time

Use your spacebar to toggle this processing option on or off. *wcFILE* will only apply this processing option to your files if it is toggled on.

Set this option to "No" if you want Wildcat! to deduct the time to download files in this area from the caller's time remaining for the day. Change it to "Yes" if you want your caller to be able to download these files without affecting their total time for the day.

File Offline

wcFILE will let you add files and descriptions to the database even if the file names exist only in a description file and not on disk. This is useful in cases where you have one CD-ROM drive, but several CDs that you want to add.

Any files *wcFILE* does not find on disk will be added to the database if you change this option to "Yes". If you allow offline file requests in the security profile definition in MAKEWILD, your callers will be able to request offline files automatically. It's then a simple matter to attach the offline file to a message for your caller.

Update File Date/Time

Use your spacebar to toggle this processing option on or off. *wcFILE* will only apply this processing option to your files if it is toggled on.

When you add or update files, you can choose to set the file date in the database to the date of the file on disk, or today's date.

If you want the files you add to show up in the "New Files Since" menu, select "Use Today's". If you prefer the file records to show the actual date and time for the file, select "From Disk".

Update File Size

This is a yes/no option. If you want *wcFILE* to update the size of a file it processes with the file's size on disk, set this option to "Yes".

If you want *wcFILE* to ignore the file size during processing, change this option to "No".

Update Last Access

The "Last Access" field in the file database shows the last time the file was downloaded. Change this option to "Yes" to set the "Last access" date for these files to today's date and time.

Set this option to "No" if you want to leave the "Last Access" field blank.

File Cost

Use your spacebar to toggle this processing option on or off. *wcFILE* will only apply this processing option to your files if it is toggled on.

You can assign a cost in "credits" to each file you process during this session. If you would like Wildcat! to deduct credits from the user's account balance when these files are downloaded, toggle this option "On" and enter the number of credits to deduct in this field.

Number of Downloads

Use your spacebar to toggle this processing option on or off. *wcFILE* will only apply this processing option to your files if it is toggled on.

Use this option to change the "Number of times downloaded" information in the file database record for these files to the number you specify in this field.

Uploader Name/Id

Use your spacebar to toggle this processing option on or off. *wcFILE* will only apply this processing option to your files if it is toggled on.

Files processed during this session will have the uploader name set to the name or user ID number you specify here.

File Password

Use your spacebar to toggle this processing option on or off. *wcFILE* will only apply this processing option to your files if it is toggled on.

If you want callers to enter a password befor they can download files processed during this session, toggle this option "On", and enter the password here.

If you want to remove password protection from a group of files you are updating, toggle this option "On" and leave this field blank.

Description Mode

If you are adding or updating files only from the disk without a description file, set this option to "None".

If you have a text file listing file names and descriptions for each file on the disk, set this option to "From File". *wcFILE* will import the file descriptions into the database as it adds each file.

If you want to type the file description in yourself as each file is added, set this option to "Prompt".

If you want to process descriptions embedded within archive files in the format FILE_ID.DIZ and DESC.SDI, select "DIZ/SDI".

DIZ/SDI description processing now supports the external packers defined in MAKEWILD. You can still utilize the internal ZIP/LZH if you choose.

Description File

Type the path and file name of your description file (for instance ALLFILES.BBS) here, or press F2 to pop up a directory selection list.

When you have finished entering the file name and path, press F3 to pop up the description file window to set the beginning and ending points for file name and description.

Browse Description File

wcFILE can read description files in a variety of different formats. All you need to do is show *wcFILE* where the file name begins and ends, and where the description begins and ends.

Press F3 and use your arrow keys to move the beginning and ending markers for file name.

Press F4 and use your arrow keys to move the beginning and ending markers for file description.

Press F10 to save your settings and go back to the "File Options" window.

File Area After Description

On some CD-ROM description files, the file area number is specified after each file description. Change this option to "Yes" if the description files follow this format, and if you want the files to be added to the file database in the file areas specified here.

Use Internal Zip/Lzh

Set this option to "Yes" if you would like *wcFILE* will use its own internal ZIP/LZH compression code to extract FILEID.DIZ or DESC.SDI from files for description processing.

If you prefer *wcFILE* to use external utilities such as PKUNZIP or LHARC to process file descriptions, change this option to "No". *wcFILE* will then use the packer configurations in the "Offline Mail" section of MAKEWILD to execute your choice of external file compression utilities.

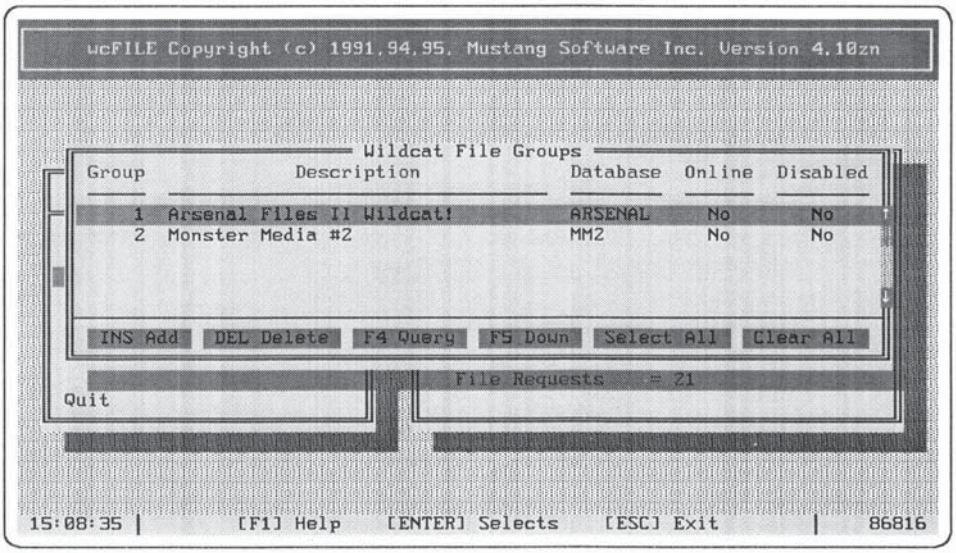
Add Extended Descriptions

If the file description is longer than 80 characters, you can add the complete description to the "extended description" field in the file database record. Change this option to "Yes" to add extended descriptions.

Automatically Generate Keywords

Wildcat! maintains a list of keywords for each file in its database, to help speed up database searches. Change this option to "Yes" if you would like *wcFILE* to add keywords automatically from the file descriptions.

Maintain Groups Database



Select this menu option to create a separate file database for an individual CD-ROM. This allows you to add and remove CD-ROM disks from your BBS while still allowing callers to search, list and request files.

Press INS to add a new group database, DEL to delete the highlighted group, F4 to check if the highlighted group is online or offline, or F5 to mark the highlighted group offline. Press ENTER to view or edit the information about a group, including file areas, location and access.

When you have completed the procedure, run *wcREPAIR* on all your new file groups to create a separate index file for each group.

Group Name

Group Name is the name to be displayed by Wildcat! to your callers when they select the List Files menu command.

Database Name

Database Name is the name of the file database for this group. This must be a valid DOS file name of up to 8 characters in length.

Fixed device

Answer "Yes" to this option if you are creating groups from file areas that are on a hard drive. Answer "No" if you are using file areas that are on a removable device such as a CD-ROM.

Volume Name

Volume Name and Volume File are the two ways Wildcat! locates the specific CD-ROM or other drive associated with this group. You must specify at least one of these. Use the DOS command

```
DIR /P
```

while logged to your CD-ROM drive to see the volume name of the CD, then enter it in this window.

Volume File

If the CD-ROM has no volume name, or if it duplicates exactly the volume name of another CD-ROM on your system, you can use the Volume File to identify it instead of the volume name.

A Volume File is a file name and path that is unique to that volume — in other words no file of the same name appears on any other drive, volume or partition on your system. This field allows you to enter a full path —

wcFILE will check for the existence of this file to associate a particular CD or other volume with its Group Database.

Group Location

Location is the actual DOS drive letter and path for the volume in question. If your CD is mounted in CD-ROM drive E:, enter E:\ in this field. To reference a subdirectory on a hard drive, enter the drive letter and full path to the subdirectory.

Group Online

Group Online is a toggle. You can mark an entire group of files "offline" by changing this toggle and removing the CD-ROM from the drive. Use the F4 "Query" key to detect if a group is currently online or offline.

Allow Requests

Allow Requests is a toggle. Turn it on if you would like your callers to be able to generate an offline file request for *wcFILE* if they attempt to download an off-line file.

Send Messages

When a caller requests a file that is off-line, Wildcat! will add the caller's request automatically to *wcFILE*'s Request Database. If you do not want to be notified that a caller has requested an off-line file, set this option to "No".

If you want to be notified of file requests, change this option to "Yes".

Disable Group

This option allows you to remove a group, along with its associated file areas and files, from your BBS, without actually deleting the files from your system. If you change this option to "Yes", callers will not be able to select, list or download from this group. You can re-enable this group and make it available again to callers by setting this option to "No".

Lock count

This field is mainted by *Wildcat!*, and is incremented each time a user begins a download of a file associated with the current group. wcFILE will not allow you to change the status of a group from online to offline if this lock count is greater than zero.

If for some reason this value is set incorrectly and preventing you from changing the status of this group, you can edit this field, after ascertaining that all your Wildcat! nodes are down and the group database is not in use.

F5 File Areas

The **File Areas** button pops up a list of file areas to assign to this group. File areas that are available are shown in white, while file areas that are already associated with other groups are gray, and cannot be selected. Note that a file area cannot be associated with more than one group.

Selected file areas have a dot in parentheses to the left of the file area name. You can toggle individual file areas by selecting and double-clicking with the mouse, or by pressing the SPACE. Press F10 to save your selections and return to the previous screen. Press F10 again to complete your modifications and return to the file group selection screen.

Drop-In Database support

Mustang Software anticipates that Sysops and CD-ROM vendors will begin creating and distributing pre-made database files for popular CD-ROMs, to help make installation of a CD-ROM a simple, one-step process. The **Drop-In Database Support** section of *wcFILE* is designed to help you import and export these pre-made database files.

Importing a drop-in file database

To import a premade file database, select **Drop in a premade database** from the **Drop in database support** menu. *wcFILE* automatically handles

extracting these files, appending the file areas to your existing configuration, and adding the file names and descriptions to your BBS.

Use the file and directory selector to pick a dropin file to import. When you have selected your dropin file, another screen will appear, allowing you to view and select some processing options. If you have do not have enough unused file areas for *wcFILE* to use, you will be prompted to exit and run *MAKEWILD* before continuing.

Don't forget to use the F6 Conferences and F7 Profiles to select conference and security profile access to these file areas. When you have finished making your selection, press F10 to begin importing the new file areas. *wcFILE* will import the file information, and create a file database with data, index and dialog files. This procedure could take quite some time, so a progress indicator is displayed on screen.

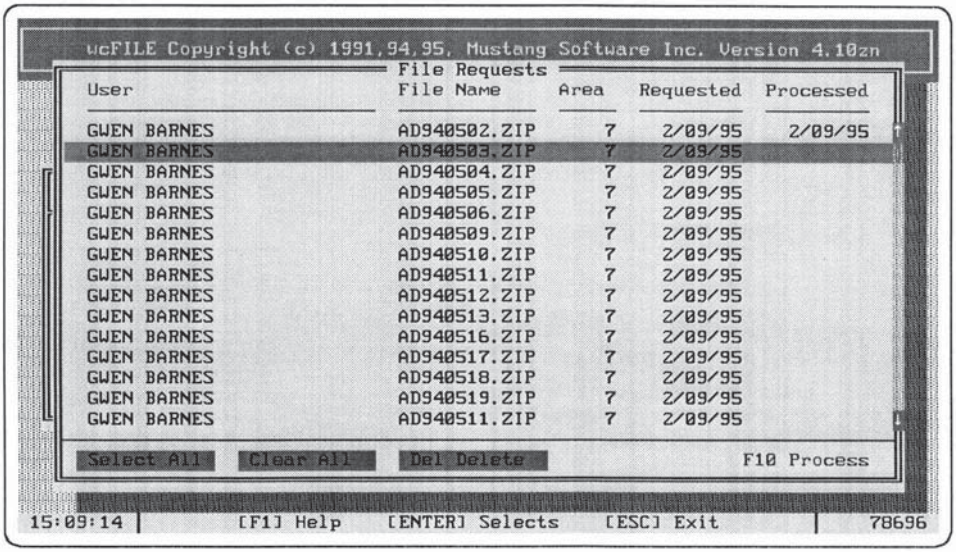
Option	Notes
Group Name	Enter the Group Name that should be displayed by Wildcat! to your callers when they select the List Files menu command.
Database Name	This is an informational field showing the actual file database name for this group.
Group Location	Location is the actual DOS drive letter and path for the volume in question. For isntance, if your CD is mounted in CD-ROM drive E:, enter E:\ in this field. To reference a subdirectory on a hard drive, enter the drive letter and full path to the subdirectory.
Allow Requests	Allow Requests is a toggle. Turn it on if you would like your callers to be able to generate an automatic message to the sysop if they attempt to download an off-line file.
Send Messages	When a caller requests a file that is off-line, Wildcat! will add the caller's request automatically to *wcFILE*'s Request Database. If you do not want to be notified that a caller has requested an off-line file, set this option to "No". If you want to be notified of file requests, change this option to "Yes".

Option	Notes
Disable Group	This option allows you to remove a group, along with its associated file areas and files, from your BBS. If you change this option to "Yes", callers will not be able to select, list or download from this group. You can re-enable this group and make it available again to callers by setting this option to "No".
Number of areas	This is an information field showing the number of file areas associated with this group. Use the F4 View button to see a list of file areas in this group database file.
Add Consecutively	You have the choice here of adding group file areas to MAKEWILD in contiguous blocks, or in whatever slots are available in your current list of file areas. Set this option to "No" if you want *wcFILE* to use unallocated file areas within your currently defined file areas. Change this option to "Yes" if you want *wcFILE* to begin adding group file areas after the last current file area.
Security profile access for file areas	You can set access to each file area by security profile from this screen, for downloading, uploading and listing. Changes you make here have the same effect on file area access as changes you make in MAKEWILD from the Security Profile and Security Override screens.
Conference access for file areas	You can set access to each file area by conference from this screen. A conference must have access to a file area if callers are to be able to list files in this area from within that conference.

Creating a drop-in file database

Creating a drop-in file database is easy. First, create a group, using the **Maintain Groups Database** menu selection. Then, go to **Drop-In Database Support, Create Drop-in Database**, and select the group you want to export. *wcFILE* will automatically extract and archive the necessary information, and stores the file in your *Wildcat!* directory as [FILENAME].DRP.

Maintain Request Database



When a caller requests a file that is marked "offline", *Wildcat!* adds the file request to a data file, and optionally sends a message in conference 0 to the Sysop noting the file request. You can process these file requests as part of your regular BBS maintenance, using the **Maintain Request Database** menu in *wcFILE*.

The window that pops up lists all the current file requests. You can process requests one at a time, or in a batch. By default, all file requests are tagged for processing. Use your SPACE to tag or untag requests, or delete a request from the queue with your DEL key.

When you are finished selecting the file requests you want to process, press F10 to begin processing. *wcFILE* will prompt you to insert the correct CD-ROM, then it will copy each requested file to your hard drive, then attach it to a message for your caller in conference 0.

File requests are treated exactly as regular downloads for accounting purposes. Each time a caller downloads a requested file, *Wildcat!* will subtract the cost, if any, from the caller's account balance, and increments the bytes and number of files downloaded. File ratios and daily limits are checked before allowing the download.

Quit

Select this menu option to leave the program and return to DOS.

Command line operation

A simple command language allows you to create and save command scripts using a structure and syntax similar to that used by *wcPRO*. Use a text editor to create and save these scripts as plain ASCII files with the extension .CMD (for "CoMmanD").

For instance, the command script to add files from a description file "ADDFILES.TXT" would look like this:

```
PROCESSMODE=ADD DESCFILE=C:\ADDFILES.TXT DESCFILEPOS=1,12,35,80 UPLOADER=30268 DESCMODE=FROMFILE
```

Note that there are no spaces between the keyword, equal sign, and argument. Each set of commands for a processing operation must be on one line.

Keywords	Allowed Arguments
PROCESSMODE	Add/Update
FILEAREA	File area number (range checked against MAKEWILD)
PROCESSDUPES	CurrentArea/CurrentGroup/AllGroups
ADDIFEXISTS	True/False
STOREDPATH	Valid DOS file path
SCANSUBDIRS	True/False
STRICTCHKING	True/False
NEVEROVER	True/False
NEVERDEL	True/False
DONTCHARGE	True/False

Keywords	Allowed Arguments
FILEONCD	True/False
FREETIME	True/False
FILEOFFLINE	Yes/No/Verify
FILEDATE	FromDisk/Todays
FILESIZE	True/False
LASTACCESS	True/False
FILECOST	Numeric Value
NUMACCESSES	Numeric Value
UPLOADER	User Name/User ID
PASSWORD	String Value
DESCMODE	None/FromFile/DizSdi/Prompt
DESCFILE	Path\FileName of description file
DESCFILEPOS	FileStart,FileStop,DescStart,DescStop positions
AREAAFTERDESC	True/False
INTERNALZIP	True/False
ADDEXTDESC	True/False
MAKEKEYWORDS	True/False
LOADFILE	DOS filename\path of saved .WCF file
DOWNGROUP	Groupname or ALL
DOWNTIMEOUT	0 = retry infinitely, default is 5 minutes

The DOWNGROUP and DOWNTIMEOUT commands bear special mention. These commands are designed for multi-line systems. The DOWNGROUP command allows you to flag a particular group to go offline as soon as the last user has finished listing or downloading files in that group. When *Wildcat!* receives this signal, the specified group will immediately become unavailable to all callers except those who are actively listing or downloading files in that group. This lets you change Cds "on the fly" without having to take the whole BBS down.

The DOWNTIMEOUT flag sets the maximum amount of time *wcFILE* will wait for all users to leave the specified group before it takes the group offline. The default is 5 minutes. If all users have finished with that group within the specified time, the group will go offline, allowing you to remove or change the CD. If the maximum time elapses and callers are still in the group, the operation will abort. Set this parameter to 0 to allow *wcFILE* to retry until all users are out of the group.

The old (Version 4.01 and earlier) command line parameters have been retained for downward compatibility. The following table shows a complete list of command line switches.

Switch	Example	Notes
/A:[Add][Update]	/A:ADD /A:UPDATE	Add new files to the database. Update existing file information.
/D:*FileName*	/D:ADDFILE.TXT	Description-file name
/D:DIZ	/D:DIZ	Extract description from FILE_ID.DIZ and DESC.SDI in archive.
/E	/E	Include the extended descriptions
/F:*AreaNum*	/F:41	File area number for this batch.
/G	/G	Generate keywords from descriptions.
/I	/I	Retain download and upload details. (Update only)
/J	/J	File area specified after description.
/L:*FileName*	/L:UPDTCD	Load saved configuration file from disk
/N:*UploaderName*	/N:Jim_Harrer	Uploader's name or user ID. No spaces! Underline character is converted to a space during processing.
/O	/O	Set Off-line flag

Switch	Example	Notes
/P:*fStart,fEnd,dStart,dEnd*	/P:1,12,22,80	The column positions of the file names and the file descriptions for the Description file.
/Q	/Q	Auto detect (query) what CDs are on-line.
/R	/R	Set On-CD flag
/S:*StoredPath*	/S:C:\CAD	The actual path where the files are located.
/T	/T	Use the current date and time for the file instead of its own.
/U	/U	Scan the stored path's subdirectories for files.
/X	/X	Exclusive mode access (/X). This switch will bypass the normal file locking/sharing routines to provide better network performance. **Do not run *wcFILE* with this switch while *Wildcat!* is active!**

Changing the default configuration

wcFILE starts up with certain parameters as defaults. You can change these default settings by opening the Add/Update Files window, making your changes to this screen and to the Browse Description screen, and saving your settings to disk as DEFAULT.WCF. The next time you start *wcFILE*, it will read this default settings file and load your preferences automatically.

There are other uses for these saved configuration files as well. You can save an image of your settings under the file name of your choice, and recall those settings for automated command line processing. Depending on whether you are using the new command script language or the old-

style command line parameters, the syntax for calling these stored configurations is slightly different.

To use a stored configuration file in a command script, use the command keyword

```
LOADFILE=[path/filename.WCF]
```

substituting the actual name and path for your stored configuration path.

To use a stored configuration file as a command line switch, add the following switch to your command line:

```
WCFILE /L:[path/filename.WCF]
```

substituting once again the actual name and path for the configuration file.

Batch file operation

Now that we've configured *Wildcat!'s* basic settings, tested our modem settings and created a file database, it's now time to create the necessary batch files to run *Wildcat!* unattended.

You should always start *Wildcat!* from a batch file. You could of course simply type WILDCAT at the DOS prompt, but the BBS would have no way to restart itself in the event of an error condition, and automated operation would be impossible. You have much more control over how *Wildcat!* interacts with external programs and doors if you use a properly-written batch file.

Configuring your system for *Wildcat!*

If you have not done so already, please review the section in Chapter 1, *Installation*, on modifying your AUTOEXEC.BAT and CONFIG.SYS files to create a proper working environment for *Wildcat!*

CAT.BAT

We have provided some example batch files with *Wildcat!*, installed in the WILDCAT batch file directory. The simplest example is CAT.BAT, which is suitable for a single line BBS using the recommended "Swap for Doors and Menu Hooks" setting in *MAKEWILD* set to Yes.

`:RELOAD`	label for restart if needed
`CD \WILDCAT`	changes to the proper directory
`WILDCAT`	starts the program
`IF ERRORLEVEL 1 GOTO RELOAD`	checks for error on exit and restarts this batch file if needed
`ECHO ON`	only gets here if the errorlevel was less than 1, indicating a normal exit with F10.

When you terminate *Wildcat!* with the F10 key, *Wildcat* sets a DOS parameter called the errorlevel to 0 (zero), which is the standard errorlevel for normal program termination. If *Wildcat!* exits with a fatal error, it sets the errorlevel to 1.

In the example CAT.BAT file, we use the batch command IF ERRORLEVEL 1 GOTO RESTART. This tells the batch file to jump to the batch file label :RESTART for the next command if *Wildcat!* has exited with a fatal error, and set the errorlevel to 1.

If the errorlevel is 0 (indicating the use of F10), the batch file does not branch to the :RESTART label, but continues with the next line (ECHO ON) which simply stops the batch and returns to DOS.

Don't forget to edit CAT.BAT if your drive letter and paths are different from the example. Finally, edit your AUTOEXEC.BAT file, and add

```
CD \WILDCAT
CAT
```

as the last two commands so *Wildcat!* will restart automatically if your machine reboots for some reason.

The following examples show sample CAT.BAT files for a variety of configurations. You may need to edit drive and path information to fit your own configuration.

Here are some other examples of CAT.BAT files for a variety of configurations:

Terminate for doors, Node 1

```
@echo Now Executing CAT.BAT for Node 1
:RELOAD
SET WCNODEID=1
SET WCPORTID=1
C:
CD \WILDCAT
WILDCAT
IF ERRORLEVEL 4 GOTO CHAT
IF ERRORLEVEL 3 GOTO MAIL
IF ERRORLEVEL 2 GOTO DOOR
IF ERRORLEVEL 1 GOTO RELOAD
GOTO END
:MAIL
CD \WILDCAT\WCWORK\NODE%WCNODEID%
\WILDCAT\WCMAIL
GOTO RELOAD
:CHAT
CD \WILDCAT\WCWORK\NODE%WCNODEID%
\WILDCAT\WCCHAT
GOTO RELOAD
:DOOR
IF EXIST WCWORK\NODE%WCNODEID%\EVENT.BAT GOTO EVENT
CD \WILDCAT\WCWORK\NODE%WCNODEID%
DOOR.BAT
:EVENT
CD WCWORK\NODE%WCNODEID%
EVENT.BAT
:END
```

Don't forget to add the command CAT.BAT to the end of your event and door batch files if you terminate, or *Wildcat!* will not be able to restart.

With a front end mailer (swap for doors)

```
@ECHO OFF
@echo Now Executing CAT.BAT
C:
CD \WILDCAT
REM The command line to start Wildcat! assumes your mailer passes
REM Baud as %1, Error correction (MNP) as %2, and time till next
REM event in minutes as %3
WILDCAT /B%1%2 %3
ECHO ON
```

Local Sysop logon to Node 0 (swap for doors)

```
@ECHO OFF
@echo Now Executing LOCALCAT.BAT
SET WCNODEID=0
SET WCPORTID=0
C:
CD \WILDCAT
WILDCAT /SYSOP
ECHO ON
```

Command line switches

If you start *Wildcat!* with a command line switch, it will exit to DOS automatically after the current call. This is useful for local operation, or if some other program launches *Wildcat!* then regains control of the PC after the caller logs off.

You can start *Wildcat!* with the following command line options.

`/A`

Use this switch to send the modem a command to answer the phone as soon as you start *Wildcat!*, for instance if the phone is answered by a voicemail system or a switch that detects and routes calls to fax, data or voice lines.

`/B [baud][ec] [event]`

Use the /B switch if another program besides *Wildcat!* will be answering the phone: for instance a front-end mailer. Use /? to see a list of supported baud rates.

The mailer should pass the baud rate with error correction result code, plus time in minutes to the next event, as replaceable parameters.

An actual command line might look like this:

```
WILDCAT /B  %1%2  %3
```

If the front end program passed 2400 as the baud rate, "MNP" as the error correction string, the command line would be filled in like this:

```
WILDCAT /B 2400MNP
```

When you run *Wildcat!* from a front-end mailer, *Wildcat!*'s internal event scheduler will not work, because there is no way to determine if *Wildcat!* will even be running at the time an internal event is scheduled to take place.

You must therefore use the event scheduler in your mailer to run events. To be sure that *Wildcat!* terminates in time for a scheduled event, your mailer should pass the number of minutes until the next scheduled event as %3 on the command line.

If an event is scheduled to occur within the maximum number of minutes allowed by a caller's security profile, *Wildcat!* will warn the caller of the upcoming event, and deduct from the caller's remaining time to be sure that *Wildcat!* terminates and allows the mailer's event to take place on schedule.

/C

Logs all Caller ID information reported by your modem to the activity log. Use this option if you need to troubleshoot a problem capturing Caller ID, or to record complete information in the activity log. This option requires a Caller ID-capable modem, and the availability of Caller ID from your local telephone company.

/D

This command line switch stands for "Debug Mode", and displays available memory and available stack in the lower right portion of the status line during a call, and records this information in the activity log when *Wildcat!* starts and finishes. Filename information is displayed in the top right corner if *Wildcat!* is attempting to lock a file. This information may be useful to MSI Tech Support staff in diagnosing memory shortage problems.

`/LOCAL`

Use the LOCAL switch for a local logon. If this switch is used then *Wildcat!* will automatically exit to DOS after the local logon. This switch may be abbreviated to the first letter.

`/NOVELL`

Use the NOVELL switch if you use NetWare v3.x or higher, and you would like *Wildcat!* to look up your user name and password automatically from the "full name" information in your NetWare user account. For NetWare 4, you must enable bindery support to recognize this command. This option does *not* work with Novell Lite. This switch may be abbreviated to the first letter.

`/RUN <filename>.WCX <optional parameters>`

The run-time code for *wcCODE* programs is contained within the *Wildcat!* executable and overlay files. That means *wcCODE* programs cannot run on their own without *Wildcat!* to execute them. The /R command line switch allows you to launch a *wcCODE* program directly from the *Wildcat!* command line. *Wildcat!* will exit to DOS when the *wcCODE* program has finished executing. This switch may be abbreviated to the first letter.

`/SYSOP`

Use the word SYSOP if you want to log on as the Sysop from the command line. This switch will bypass the First name, Last name prompt and use the Sysop's name declared in *MAKEWILD*. This switch may be abbreviated to the first letter.

`/USER <first last password>`

Use the word USER if you want to log on locally with your name and password on the command line. This switch will bypass the logon prompt in *Wildcat!*. This swich may be abbreviated to the first letter.

wcWAIT

This small program adds pauses to batch file operations. For example, you synchronize system events on a multiline system, or to give yourself time to break out of a batch file.

The command line

```
wcWAIT /S:30
```

will pause for 30 seconds, then continue.

wcWAIT can also pause until the specified time of day in 24 hour format. For instance

```
wcWAIT /T:15:00
```

will pause until 3:00 pm. *wcWAIT* awaits the designated time, then continues.

If you press any key while *wcWAIT* ise counting down, the program will exit with errorlevel 1.

You can also use *wcWAIT* in conjunction with *wcNODE* to bring nodes down for maintenance, and check their status. *wcWAIT* will wait until all nodes are clear, then continues with the batch file. We will discuss this option in more detail, along with complete command line parameters, in Chapter 5, *Managing a BBS*.

Logging on as System Operator

Initial Testing

Before you actually use the sample CAT.BAT file to start *Wildcat!*, we recommend a local Sysop logon first, so you can test your configuration. Start *Wildcat!* with the following command line:

```
WILDCAT  /LOCAL
```

If everything is configured properly, your screen will display your PRELOG.BBS text file, then ask for your first name. As this is the first time you have logged on, you are still a "new user" until you select a password.

BE VERY CAREFUL ABOUT THE PASSWORD YOU SELECT.

Do not use the same password you use on other systems and *do not* use simple names and phrases. In particular, refrain from using names of your children, spouse or pets, your initials, or any other words which are commonly known to be associated with you. Remember, this one word is the key to YOUR ENTIRE COMPUTER SYSTEM! The best passwords combine numbers, letters and punctuation, and consist of more than 7 characters, such as JM5S7@HP. If that's too much for you to handle, try 2 unrelated words of 4 or more characters separated by punctuation such as AUTO$TIMBER.

Answer the questions *Wildcat!* asks you, and press ENTER until you get to the Main Menu. Don't be alarmed if you are notified that questionnaires or other files don't yet exist; you will have the opportunity to create all of your customized options later.

The local console

When *Wildcat!* is idle, or waiting for calls, your screen shows a list of commands, and a selection of statistics about your system.

A combination of Function keys and Alt keys control a number of activities while the system is waiting for calls, and while a caller is on-line. Although there is a relationship and some overlap between keys used while waiting for calls and when a caller is connected, we will review each separately for clarity.

Key to use	Perform this action	Comments
F1 or ALT S	System operator local logon	**Idle**: Logs in Sysop using name in *MAKEWILD*, prompts for password. **On-line:** Toggles the "Sysop Next" flag. When the current call has finished, *Wildcat!* will beep and prompt the Sysop to log in locally.
F2 or ALT K	Keyboard on/off	Enable/disable the keyboard. Useful if your cat has access to computer room!
F3 or ALT P	Printer on/off	Toggle printing of the activity log from on to off or off to on.
F4	Sysop page override on/off	Override "Sysop page" on/off settings from Sysop menu event manager.
F5	Bell on/off	Override "system bell" on/off settings from Sysop menu event manager.
F6	Start or End local chat or page	Begin or end local chatsession with current caller, or answer page from the caller.
F7	Add time	Give extra time to user for current call, in 5 minute increments.
F8	Remove time	Take time away from user in 5 minute decrements.

Key to use	Perform this action	Comments
F9	Change user's security	Pop up a list of security profiles. Arrow keys select and assign a security profile.
F10 or ALT X	Exit to DOS	**Idle:** Terminate *Wildcat!* and return to the DOS prompt. **On-Line:** Set the "DOS next" flag. After the current call is finished, *Wildcat!* will terminate.
ALT C	Toggle capture file	Records caller activity to CAPTURE.###
ALT D	DOS menu	**Idle:** Pop up the Idle Programs menu or shell to DOS. **On-Line:** Send a message to the caller that "Sysop has exited to DOS, please wait". *Wildcat!* then shells to DOS. Type EXIT to return to *Wildcat!*.
ALT L	Local logon	**Idle**: Prompt local user for name and password for local logon. **On-line:** Toggle the "Local Next" flag. When the current call has finished, prompts the local user to log in.
ALT U	User record window	Toggle the size of the status window from no status line, 1 or 2 lines, and full , user record display. The size of the status line on the BBS monitor has no effect on the number of lines per screen seen by the caller. This key is disabled when a caller is using the full screen editor.
ALT V	VGA/EGA toggle	Change screen mode between 25 lines and 43/50 (EGA or VGA required). This key is disabled when a caller is using the full screen editor.

Key to use	Perform this action	Comments
ALT W	Writing to screen toggle	Turn off all screen display to the local monitor. Try this on slower PC/XT systems, or under DESQview when there is no need to monitor caller activity.

On-line Message Keys

The ALT key used in conjunction with the numbers 1 through 9 will display the corresponding display file to the current caller. For instance, when you press ALT 1, *Wildcat!* displays ALT1.BBS, ALT 2 displays ALT2.BBS, and so on.

These messages might be used to inform a caller that their time available was being reduced to enable you to perform some maintenance. If you want to hang up on a caller, add @LOGOFF@ to the end of the display file.

Two other ALT key combinations are handled in a special way:

ALT 0 (zero)	Display ALT0.BBS to user and lock that user's name out of system for any future calls.
ALT – (minus)	Log user off immediately without notice or explanation.

Common problems and solutions

I've used a prior version of *Wildcat!* and now it won't determine baud rate.

You probably have your modem set for NUMERIC codes rather than VERBAL. Change it to verbal with the command AT V1, or by changing your modem switch (#2 on the USR HST).

When I start *Wildcat!* it tries to initialize the modem, but displays "Carrier detected. . . "

Your modem setting for Carrier Detect (CD) is probably forced "ON". Change the appropriate DIP switch to "NORMAL CD". Some modems without switches use the &C1 command to perform this function. This message means that *Wildcat!* thinks a call is in progress! If you have no switches, add &C1 to your modem string.

Wildcat! answers the phone and the caller gets connected but gets no response. *Wildcat!* displays a message

```
Determining Baud Rate...
```

You have apparently set *Wildcat!* to determine baud by result codes, and it isn't getting codes that it can identify. First, check to be sure that you are sending verbal codes. Also check your modem to make sure the DIP switch is also set for verbal. If you are sending verbal codes, then check the result code strings in *MAKEWILD* for each baud rate against your modem manual. Also make sure that your delay for waiting for a result code is set high enough. This delay can be tested using *wcMODEM*. Finally, check that your modem is sending EXTENDED codes, including the baud rate information needed. Extended codes are usually activated with the AT command Xn, where n is a number from 1 to about 7. Consult your modem manual, and test your setting with *wcMODEM*.

Why am I considered a new user when I first log on?

Remember, until you have logged on the first time and used the F9 key to upgrade your security to that of Sysop, *Wildcat!* has never heard of you!

Wildcat! will **not** automatically recognize you as the Sysop — you must give yourself a "promotion" to Sysop with the F9 on-line upgrade key.

Now, take some time to check out all functions of the system, including access to menu commands at every security profile. To make this easier, log off and log on again using a fictitious name such as "TEST USER". Use the F9 key to change and then test this user's access at each security profile setting. You can delete this fictitious user later when you have finished testing your system's security.

When I try to log in, the system tells me I don't have access to that node. Why not, I'm the Sysop?

Each security profile in *Wildcat!* can be limited to calling only certain lines. Even in a single line system, each profile can be extended or denied access to the node. Check your Security Profile Definition screen and make sure that each security profile has access to each node (under node access).

I ran out of time as the Sysop and can't log back on!

Without *wcPRO* you have to logon as a new user and upgrade yourself to Sysop, go to the Sysop menu, to **User database**, and look your "real" account up, then **Extra info**, and change the "Time Left" to 999.

DO NOT CHANGE THE SYSTEM DATE TO ADVANCE TO THE NEXT DAY! *Wildcat!* is extremely date sensitive! This can be avoided in the future by checking your security profile definition Daily Time Limit and Maximum Logon Time and making sure they are set to 999 for your Sysop security profile.

Why don't my file areas show up?

In order to have files listed, you must make them available in two ways. First, the file areas must be available for list and/or download access through the security profile in the "download areas" for each security profile. Secondly, the file areas must be available in the conference definition. Both must be set properly since file access is controlled by conference and security profile.

Things work fine, but when callers try to say Good-bye, *Wildcat!* just sends the menu to them again and doesn't hang up!

Your modem has the DTR (Data Terminal Ready) line forced ON. Change the appropriate DIP switch to "NORMAL DTR" Some modems without switches need to include the &D2 command in the startup string to perform this function.

4 -What a caller sees

It is impossible to enjoy idling thoroughly unless one has plenty of work to do.

Jerome K. Jerome

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This chapter is an introduction to the various features of *Wildcat!* BBS. It is also provided as a text file called WCUSER.TXT on the installation disks. Please feel free to customize the file to match your own menu and command structure, and distribute it to your callers as a user's guide to *Wildcat!* BBS.

Logging On

When you log on to a BBS or on-line service, you have to provide information to the computer that uniquely identifies you. This normally includes your first and last names, a user ID number, and a password.

Hello, my name is . . .

When you connect with the BBS, whether you are logging on locally or with a modem, *Wildcat!* will ask you for your name and password. You can enter your full name plus your password, separated by spaces, at the "First name" prompt.

Let's assume your name is **Elvis Presley**, and your password is **Memphis.** Here's how you would enter that information to log on.

```
What is your first name? Elvis Presley Memphis
```

Hello, my middle name is . . .

If there's already one **Elvis Presley** on the BBS, and the system does not allow duplicate names (more on this below), you may want to use your middle name or initial to distinguish yourself from your namesake.

To log on as **Elvis Aaron Presley** with a password of **Graceland,** use a comma or semicolon to separate your first, middle and last, and password, like this:

```
What is your first name? Elvis Aaron;Presley;Graceland
```

User ID numbers

On large BBSs, there may be other users with the same name as yours. If the Sysop allows duplicate user names, *Wildcat!* will list all the users

whose names match yours with their user ID numbers and locations, and you can select your own from the list.

```
WILDCAT! Copyright (c) 87,94 Mustang Software, Inc.  All Rights Reserved.
Registration Number: 00-0000.  v4.0MPβ R (MULTI-LINE PLATINUM).  Node: 176.

What is your first name? john doe
Looking up your name. Please wait...

Found these names matching "john doe"

     Name                          User ID     From
[ 1] JOHN DOE                      28          Ashtabula, OH
[ 2] JOHN DOE                      29          Bountiful, UT
[ 3] JOHN DOE                      30          Calumet, MI
[ 4] JOHN DOE                      31          Delano, CA
[ 5] JOHN DOE                      32          Edmonton, AB
[ 6] JOHN DOE                      33          Florence, OF
[ 7] JOHN DOE                      34          Grand Forks, ND

Select [1-7] or press ENTER to logon as new user?



 Name ,                                                  Age ??  File
 Node 176 Baud Local   Time 5     Sec            |Key|Prn|Pag|Bel|Cap|m185k.s11k
```

You can also log on with your user ID number instead of your name. *Wildcat!* will not ask you to confirm your name and location so long as you enter your password on the same line with your name or user ID.

```
WILDCAT! Copyright (c) 87,94 Mustang Software, Inc.  All Rights Reserved.
Registration Number: 00-0000.  v4.0MPB R (MULTI-LINE PLATINUM).  Node: 176.

What is your first name? 35

Welcome JOHN DOE from Hay River, N.W.T..

Password? [xxxxxxxxxxxxxx]



 Name JOHN DOE, Hay River, N.W.T.                    Age ??  File
 Node 176 Baud Local   Time 5     Sec NEWUSER   |Key|Prn|Pag|Bel|Cap|m186k,s13k
```

Quick Logon

Depending on how the BBS is configured, you may be able to add a special character before your name or user ID number when you log on. The first special character, the * (asterisk or splat), is a quick logon. *Wildcat!* will skip the hello screens, bulletin menu, new mail scan and any other display files or questions, and send you directly to the main menu.

The second type of quick logon character is the ! (exclamation mark or bang). Just as with the * quick logon, *Wildcat!* will skip all the introductory screens, but instead of going to the main menu prompt, it loads *wcMAIL* so you can upload and download off-line mail packets.

Both quick logon functions are set by security profile in the system configuration, and are intended mainly to provide quick access to those using automated dialing scripts.

Local logons

You can log on to the BBS from the keyboard on the PC that is running *Wildcat!*, or from a PC connected to a Local Area Network (LAN) if *Wildcat!* is installed on the network.

The long way

To log on locally, change to the drive and directory where *Wildcat!*'s program and support files are installed. This is usually C:\WILDCAT.

Then type

```
CAT ENTER
```

to start *Wildcat!*. Press ALT L to log on locally from the "idle screen", and enter your name and password at the prompts. If you're the Sysop, press F1 and enter your password at the prompt.

The short way

You can start *Wildcat!* with a command line switch that bypasses the idle screen and goes directly to the logon prompt. To do this, change to the *Wildcat!* drive and directory and type

```
WILDCAT /LOCAL ENTER
```

The even shorter way

You can log onto *Wildcat!* directly from the command line with the /USER switch. This switch bypasses the idle screen and the logon prompt, and puts you right at the main menu. To do this, change to the *Wildcat!* directory and type

```
WILDCAT /USER first last password ENTER
```

Type your own first and last names and password on the command line.

For Novell NetWare users only . . .

An even faster logon for Novell users will look up your user information in your NetWare account, and skip the name and password prompts completely.

To use this, you or your system administrator should enter your full name the way it appears in your *Wildcat!* user record, in the "Full Name" in your NetWare user account information. Bindery Emulation must be turned on for NetWare 4 users.

You can then start *Wildcat!* like this:

```
WILDCAT /NOVELL ENTER
```

New Users

If this is the first time you have called this BBS then you are a new user. The system operator (Sysop) will probably want to know a little about you to set up your user account — things such as your voice phone number, mailing address, your preferred language, screen colors, protocols, and so on.

The Sysop will probably also take the opportunity to show you some information about the BBS you are calling — policies and house rules, the focus or specialty of the BBS, and subscription charges for varying levels of service.

If you make a mistake entering any of this information, don't worry. You will have a chance to correct it later, by editing your user settings or by leaving a message to the Sysop.

Hello screens, Bulletins, and other system information

Hello screens are the screens you see while you are logging on. Sysops often take great pride in the appearance of these screens, and appreciate your comments and feedback.

Bulletins are text files you can read by selecting them from the Bulletin Menu. When there are new or important bulletins to read, *Wildcat!* will show you the bulletin menu automatically.

```
                    MSI Product Information

  1 Wildcat! BBS System                 21 QmodemPro for Windows
  2 wcPRO Sysop Utility                 22 QmodemPro for DOS with OLX
  3 wcGATE Internet/MHS Gateway         23 Qmodem Testdrive
  4 wcCODE Programming Language
  5 BBS Suite Package
  6 Turn Key BBS Systems Info           31 Offline-Xpress (OLX)
  7 Wildcat! v2.61 Test Drive           32 OLX Testdrive

 41 Product pricing and ordering        46 Upgrade Information
 42 What our customers think            47 Mustang event schedule
 43 BBS Server(tm) and hardware         48 MSI Monitor - newsletter
 44 Phone number and modems
 45 Where To Purchase Mustang Products (Includes GSA Information)

Bulletins updated: NONE

Enter bulletin [1-98], [R]elist menu, [N]ew, [D]ownload, [Q]uit? [      ]

GWEN BARNES        176 934  Local  STAFF      |Key|Prn|Pag|Bel|Cap|
```

You can stop any display file from scrolling by pressing SPACE.

Reading new bulletins

Type the number of the bulletin you want to read at the Bulletins prompt, or type N to view only the bulletins that have been updated since your last call.

Downloading bulletins

You can download bulletins for reference later on. Type D, then select the bulletins by number that you want to download. You can select a range of bulletins like this:

```
Download [1-8], [ENTER] to continue? [1, 4-6, 8]
```

Wildcat! then copies your bulletins to a temporary directory, then when you exit the bulletin menu, it packs the bulletins into an archive for you. You will have the opportunity to download your bulletin file right away, or mark the file to download later.

```
Enter bulletin [1-98], [R]elist menu, [N]ew, [D]ownload, [Q]uit? [D    ]

Download [1-98], [ENTER] to continue? [5 45 47   ]
Moving bulletins into your archive directory.

Copying bulletin #5...copied.
Copying bulletin #45...copied.
Copying bulletin #47...copied.

You can archive and download your bulletins when you exit the bulletin menu.

Press [ENTER] to continue?

Bulletins updated: NONE

Enter bulletin [1-98], [R]elist menu, [N]ew, [D]ownload, [Q]uit? [     ]


Packing 3 bulletins into 'BULLSTXT.ZIP' with PKZIP

File size: 5938 bytes

[D]ownload file, [M]ark file, [Q]uit? [ ]
 GWEN BARNES          176 932  Local  STAFF       |Key|Prn|Pag|Bel|Cap|
```

You can look at the bulletin menu again any time by selecting the main menu command "Bulletin menu".

Reading the Newsletter

The newsletter is another text file you can read on-line. If the Sysop has added new information to the newsletter, *Wildcat!* will automatically ask you if you would like to read it. You can look at the newsletter any time by selecting the main menu command "Display Newsletter".

Viewing the Hello screens again

You can look at the hello screens again at any time by choosing the main menu selection for "Show HELLO Screens".

System statistics

```
[D]....................Doors          [N]...............Newsletter
[G]........Goodbye & Logoff           [H]...............Help level
[?]............Command help           [J]..........Join conference
[X]...............Dos hook 1          [Z]...............Dos hook 2
[W]............Who is online          [L]................Live Chat
[=]........Page Online User

Conf: "[1] - General Public Messages", time on 0, with 999 remaining.

Main Menu: [M F 1 C B P I Q V Y S U D N G H ? J X Z W L =] ? S

WILDCAT! BBS Version 4.10 MP (MultiLine Platinum) compiled on 2/22/95.

WILDCAT! registration ID  : 86-0001
This BBS started on       : 08/01/86
Total number of calls     : 15
Number of active users    : 1
Number of available files : 10,150
Number of active messages : 23
Current time is           : 15:21 on Tuesday, March 14, 1995
Your conference sysop is  :


Press [ENTER] to continue?
 GWEN BARNES          176 999  Local  SYSOP        |Key|Prn|Pag|Bel|Cap|
```

The main menu command "Display statistics" shows information about the BBS. The display can be as simple as the one shown above, or as detailed as the screen below. The actual information file is several pages long.

```
                         ■ Average User Profile ■
 Calls                  =          49 Downloads                  =          40
 Hours logged           =           3 Age                        =          35
 Minutes per call       =           4 Months since 1st call      =           5
 Uploads                =          22 Subscription balance       =           0
 Netmail balance        =           0

 Sex: Not disclosed = (99%)   Help   Novice  = (98%)   Hot keys:
      Male          = (1%)    level: Regular = (1%)       Yes = (45%)
      Female        = (0%)           Expert  = (1%)       No  = (55%)

 Editor:                      Menus: ASCII       = (2%)   Packet type:
     No default  = (92%)             ANSI        = (24%)   Text = (0%)
     Line editor = (0%)              RIPScrip    = (0%)    Qwk  = (100%)
     Full screen = (8%)              Auto detect = (74%)

 File    Single = (2%)     Message display:     Sorted lists:
 Display Double = (98%)       Scroll = (99%)    Sorted     = (2%)
         Full   = (1%)        Clear  = (1%)     Non-sorted = (98%)
         Lister = (0%)        Header = (0%)

[C]ontinue, [N]onStop, [P]rev, [S]top? [C]
 GWEN BARNES          176 998  Local  SYSOP      |Key|Prn|Pag|Bel|Cap|
```

Getting help

Help screens

Press the ? (question mark) at almost any menu command or prompt to see a help screen. If nothing happens right away, press ENTER once.

Sending a comment to the Sysop

If you need more assistance using the BBS than the help screens can provide, you can send a message to the Sysop. The main menu command "Comment to Sysop" lets you type a message and save it, and *Wildcat!* will automatically address your message to the Sysop.

You can find out more about using the message editor later on in this chapter.

Changing your settings

You can change many of the options you selected during the newuser questionnaire the first time. Use the main menu command "Change user settings" to view and edit your preferences.

Setting	Notes
Computer type	Describe your computer here if you would like other callers to see this information when they choose the main menu "list users" command.
Phone number	Enter your voice phone number here. *Wildcat!* uses your phone number for security verification, so you may be asked to explain the reason for the change. Your phone number is visible only to the Sysop, not to other callers.
Birth date	Enter your date of birth here. As with Phone Number, *Wildcat!* uses this information for security verification. Your date of birth is visible only to the Sysop, not to other callers.
Screen length	The normal value here is 23 lines. *Wildcat!* will automatically insert screen pauses when you view files on-line so you can see a page at a time.
Erase prompt	*Wildcat!* normally erases the "Continue" prompt by sending backspaces. If this causes problems on your system, try changing this option to "No".
Hot keys	With hot keys turned off, you can "stack" commands, that is, you can enter several single letter commands separated by spaces or semicolons, and the BBS will act on all of them as soon as you press ENTER. Change this option to "Yes" if you would like to execute commands with a single keystroke, without having to press ENTER.
Sorted listings	Change this option to "Yes" if you would like *Wildcat!* to sort file area and conference names alphabetically instead of numerically.

Setting	Notes
Quote on reply	When you reply to messages, it's considered good form to quote a portion of the original message so your readers can remember the context of your reply. If you would like *Wildcat!* to feed the message you're replying to into the message editor automatically, with -> quote symbols in the left column, change this option to "Yes".
Screen display mode	**No color**: Black and white screens only. If your terminal software can respond to *Wildcat!*'s ANSI detection, you will be able to use the full-screen message editor, otherwise you can use the line editor only. **Color ANSI**: Use this if you want to see color screens along with full ANSI animation, and the full-screen message editor. **RIP Graphics**: Use this only if your terminal software offers RIPscrip emulation (*QmodemPro* for DOS and Windows, for instance, or RIPterm). *Wildcat!* is fully graphical and mouse-compatible in this mode. **Auto Detect**: This is the best possible choice. *Wildcat!* will detect what kind of terminal capability you have every time you log on, and offers the best possible screen display mode. Use this if you want the flexibility of being able to use whatever terminal emulation you like.
Read message mode	**Scroll**: *Wildcat!* does not clear the screen between messages. New messages appear, with their message headers, at the end of the previous message, and scroll from bottom to top. **Clear screen**: *Wildcat!* clears the screen between messages. New message headers and their text always appear starting at the top of the screen. **Keep header**: *Wildcat!* scrolls the message text, but keeps the message header on screen.

Setting	Notes
Default editor	**Line editor:** Always use the non-ANSI line editor when you enter messages on-line. **Full screen editor:** Always use the ANSI full screen editor when you enter messages on-line. **Select each time:** Select which editor to use whenever you enter a message on-line. **Note:** You can switch from the line editor to the full screen editor while you are entering a message, at the "Edit Message" prompt.
File display mode	**Single line:** List download files with line number, file name and description on one line. **Double line:** List download files with line number, file name, size, date, number of downloads and estimated download time along with file description. **Full listing:** List each file on a full page with full information including date/time, size, uploader, short and long descriptions. **ANSI lister:** Lists file areas and files in a full-screen mode that allows you to use your arrow keys and spacebar to tag file areas and file names.
Help level	**Novice:** Show full menus and command prompt. **Regular:** Show command prompt with option letters. **Expert:** Show command prompt only, no option letters.
Default protocol	If you're sure you want to use the same protocol every time you upload or download a file, select your favorite here. If you prefer to view the list of available protocols every time you transfer a file so you can make your selection based on your baud rate and line conditions then choose **Select**.
Calling from	Enter your location here if you would like other callers to see this information when they choose the main menu "list users" or "Who is on-line" commands.
Current language	If this BBS offers a choice of languages, select your preference here.

Setting	Notes
Alias name	Some conferences require you to use an alias name or "handle" to post messages. Enter your alias name here.
Chat status	If you do not want other callers to be able to page you to request private or public on-line chat sessions, answer "No" to change this setting to "Unavailable".

Doors

Doors are external programs you can run from the BBS. Depending on what kind of programs the Sysop has made available, you might be able to play a variety of games, or look up information in a database.

If doors are available on the BBS, you can run them by selecting the "Door menu" command.

Questionnaires

The Sysop can create on-line questionnaires and make them available from the main menu command "Questionnaires" and in other parts of the BBS. These questionnaires can be used for on-line order entry, opinion polling, and gathering of demographic information.

Questionnaire answers can be yes/no, multiple choice, text, or numeric — if an answer requires a particular kind of input, that's the only kind it will accept.

Looking for other users

You might be curious to see who else uses the BBS. There are three ways to search for other users.

Who's on-line

If the BBS is a multi-line system, several people can use it at the same time. The main menu command "Who is on-line" shows a list of active nodes, with the name and location of each caller currently logged on.

```
                                  1  Sysop Menu
   M  Message Menu                J  Join Conference          W  Who's Online
   F  File Menu                   Y  Your Settings            P  Page Sysop
   B  Bulletin Menu               C  Comment To Sysop         L  Live Chat
   D  Doors Menu                  S  System Stats             G  Goodbye & Logoff
   Q  Questionnaires              I  Initial Welcome          H  Help Level
   ?  Command Help                =  Page Online User         N  Newsletter

   Conference : Private Email
   Time Left  : 995  Time On : 0

   Main Menu Command >>W
 #  Baud    Name                          From                    Status
---  -------  ------------------------  ----------------------  ------------------
  1  LOCAL   AARON AASHTRAY                Kitchener, ON
  2  LOCAL   MAXWELL CALCULATOR
  3  LOCAL   MAX OVERDRIVE                 Mafeking, OH
176  LOCAL   GWEN BARNES                   Mustang Software, Inc.

Press [ENTER] to continue?
 Name GWEN BARNES, Mustang Software, Inc.              Age 40  File MAIN9.BBS
 Node 176 Baud Local   Time 995   Sec SYSOP     |Key|Prn|Pag|Bel|Cap|
```

List users

You can list all the users on the BBS with the main menu command "List users". This list shows name, computer type, the last logon date, and location for each user on the BBS.

```
          Name                 Computer Type     Last Called      From
-------------------------- ---------------- --------------- ------------------
ANDY ANGSTROM                                 09/21/94        A relative place
GWEN BARNES                  Dell 486/33      10/06/94        Mustang Software, I
SMOKY BEAR                                    10/03/94        Bakersfield Fire De
STEVE CRIPPEN                                 10/05/94        Mustang Software, I
J.R. "BOB" DOBBS                              10/03/94        Ultimate Slack
JIM HARRER                                    10/10/94        Mustang Software, I
RICK HEMING                                   10/10/94        Mustang Software, I
DON LEONARD                                   10/02/94        Mustang Software, I
MARY JANE MUON                                10/10/94        Elementary Particle
ELVIS AARON PRESLEY                           07/15/77        Graceland
PAUL TRENT                                    10/10/94        Mustang Software, I
[C]ontinue, [N]onStop, [S]top? [C]

 Name GWEN BARNES, Mustang Software, Inc.            Age 40  File MAIN9.BBS
 Node 176 Baud Local   Time 994   Sec SYSOP     |Key|Prn|Pag|Bel|Cap|
```

Find a user

You can find information about a specific user with the main menu command "Find a user". Enter all or part of the user name you'd like to find, and Wildcat! will list all users who match the name you entered.

```
Name                      UserID     From                          Last Call
------------------------- ---------- ----------------------------- ---------
JOHN DOE                  28         Ashtabula, OH                 07/01/94
JOHN DOE                  29         Bountiful, UT                 07/01/94
JOHN DOE                  30         Calumet, MI                   07/01/94
JOHN DOE                  31         Delano, CA                    07/01/94
JOHN DOE                  32         Edmonton, AB                  07/01/94
JOHN DOE                  33         Florence, OF                  07/01/94
JOHN DOE                  34         Grand Forks, ND               07/01/94
JOHN DOE                  35         Hay River, N.W.T.             07/01/94
End of search.
[C]ontinue, [N]onStop, [S]top? [C]

 Name GWEN BARNES, Mustang Software, Inc.          Age 39  File
 Node 176 Baud Local   Time 998   Sec SYSOP     |Key|Prn|Pag|Bel|Cap|m182k,s13k
```

Chatting with other callers

While a single line system will only let you page and chat with the Sysop, there are several chat and paging options available on multi-line systems.

Paging the Sysop

If the Sysop is available for paging at the time you are logged on, you can request a chat with the main menu command "Page Sysop".

The Sysop's computer will beep for about 30 seconds, and flashes a message that you are requesting a chat. If the Sysop answers your page, you will be able to type back and forth to each other until the Sysop ends the chat session.

If the Sysop is not available for paging, you will see a message inviting you to leave a comment instead. Use the Sysop Page function with discretion, and only when the question you have is important enough to interrupt the Sysop's other work — few people appreciate being paged by a caller whose only reason for chatting is to say "just checking to see if this thing works" or "how old are you?"

Sysop chat

The Sysop Chat screen is normally divided into two windows. Your typing appears in the top window, while the Sysop's typing appears in the bottom window. You can both type at the same time without typing over top of each other's messages.

When you're chatting with someone in real time, it's courteous to let them know in some way that you've finished typing and you're ready for their response. The simplest way is to hit your [ENTER] key an extra time after your last sentence to leave a blank line on the screen. This signals the other person to go ahead and start typing.

When the Sysop has finished chatting with you, the chat screen will go away, and you'll return to where you left off on the BBS.

Paging other users

You can use the global menu command "Page User" to send a short message to another user on the BBS, unless the other caller is currently in a door or transferring a file. *Wildcat!* will send the message as soon as it can, without interrupting what the other caller is doing.

All of *Wildcat!'s* usual message editor commands are available while you are typing your message.

Multi-user chat

Wildcat!'s multi-user chat lets you type on-line to other callers, as they type to you. You can join a public chat channel and take part in a group discussion, or join private channels of your own, and invite other callers to join you. You can even have a one-on-one private conversation with another caller.

The chat system is like a CB Radio with a number of channels. When you go into *wcCHAT*, you start out in the main channel. Depending on how the Sysop has set it up, there may be other public channels, where anyone can go.

Everyone on the BBS also has a private channel of their own, where they can invite other callers. You cannot enter someone else's private channel without an invitation.

Finally, a caller can invite another caller into a private conversation, where only those two callers can type to each other.

Joining chat

The menu command "Run *wcCHAT*" puts you in the main chat channel. Your screen will look something like this:

```
Node Name                          Sex Area                          Notes
---- ------------------------------ --- ------------------------------ ----------
2    Mike                          (?) Mustangs Lobby
17   Marie                         (?) Mustangs Lobby
176  Gwen Barnes                   (?) Mustangs Lobby

»/action
Action words are:
:)          AFK         AHEM        ALCOHOL     APOLOGIZE   APPLAUD
BACK        BACKRUB     BEARHUG     BED         BITE        BLUSH
BOW         BRB         BURP        CARESS      CHAINSAW    CHUCKLE
COMFORT     COUGH       CRY         CUDDLE      DANCE       DIE
DROOL       DUNE        EMBRACE     FALL        FEEL        FLEX
FLIRT       FORGIVE     FRENCH      FROWN       GASP        GIGGLE
GLARE       GRIN        GROVEL      GROWL       KICK        PONDER
PURR        SHOUT       SMOOCH      TICKLE      WHISTLE     WINK

»brb
» Gwen Barnes will return in a minute!
»So that's what "BRB" means!
»ponder marie
» You offhandedly consider Marie
» Mike is softly caressing Marie
»
 GWEN BARNES          176 873  Local  STAFF      |Key|Prn|Pag|Bel|Cap|m182k,s11k
```

Chat commands

Most of the time, the text you type is sent automatically to everyone else in the same channel as soon as you press your ENTER key.

The chat system recognizes certain words as commands. With these commands, you can see who else is on-line, page other callers to join you in your channel, and invite another caller into a private conversation. There are many other chat commands —you can see them all by typing

/HELP ENTER

or

/? ENTER

Almost all commands you send to the chat program must begin with a / (forward slash). The only time you don't need to use the / character is when you type "action" words. Action words are converted to a humorous comment which can be seen by others in the same chat channel. You can

direct an action word at another individual, for instance "HUG MARY", or at nobody in particular, for instance "SIGH".

To see a list of action words, type

```
/ACTION ENTER
```

You can abbreviate almost all commands, names and aliases to the minimum number of characters necessary for *wcCHAT* to distinguish them. You could type "/UNIG UserName" to un-ignore a user, but you could not type "/UNI UserName" as the "/UNINVITE" command also starts with these three letters.

Join or set-up a private channel

The "/JOIN" command puts you in your own private channel. From there, you can "invite" another user or the entire chat group to join you. You can also change the topic of your private channel by typing "/TOPIC" followed by the new topic. The new topic will show up next to your private channel name on the list of channels.

If you want to join someone else's private channel, you must first be invited. Type "/JOIN" followed by the channel name to respond to an invitation.

Private chat

You can send comments privately to another person in your chat channel by typing a forward slash followed by the name of the user, then the message you want to send. For instance, John and Cassie are in a public channel, but want to correspond privately without leaving the channel.

User "Cassie" would type

```
/Peter Do you want to meet at lunch time?
```

The user "Peter" would respond with

```
/Cassi I'd love to Cassie.
```

[Cassie]

```
//Would the garden be a good place to meet?
```

[Peter]

```
//Let's walk down to the lake instead.
```

A special private chat

The "/TALK" and "wcCHAT commands:/RESPOND" commands are considered *very* private and cannot be monitored even by the Master Sysop. You and the person you are "talking" with can carry on a "instant" chat where each can see what the other is typing, as it is being typed.

To leave group or private chat and go into a one-on-one talk session, type /TALK followed by the name of the user you want to talk to. For instance, if Steve wants to talk to Laurie, Steve types

```
/TALK Laurie
```

Laurie would respond like this:

```
/RESPOND
```

Laurie would see a list of numbers followed by names of people who have invited her for a private conversation. Laurie then types the number next to the name of the person she wants to talk with, then she and her confidante leave the main chat system for a private one-on-one conversation.

To leave private chat and return to the channel you were last in, type /END or CTRL X.

Moderated chat

The owner of a private channel can use the "/MODERATE" command to control the conversation. Users who join must "/ASK" to speak, and their request will be placed in a queue. The moderator controls the queue and allows each user-in-turn to air their views or comments. The moderator can skip a person in the queue if it is felt they are hogging the "/ASK" requests.

At the discretion of the moderator some users may be granted "Speaker" status by the "/GUEST UserName" command. The guest can then talk at any time without the need for the moderator to pass the conversation over to them by way of the "/ASK" queue.

You can see other *wcCHAT* commands by typing /HELP or /?

Keyword	Chat type	Explanation
/ACTION	Private	List the available action words.
/ACTION [ON I OFF]	Private	Turn the use of action words on or off.
/CHANNEL	Global	Display a list of available channels.
/CLS	Global	Clear the screen.
/EXIT	Global	End the chat session and return to the BBS. The same as /QUIT.
/GUEST <Name>	Moderated	The <Name> user is granted freedom to "talk" at any time.
/HILITE <Name>	Global	Show the user's text in a contrasting color. Type /HILITE again to turn it off.
/IGNORE <Name>	Private	Ignore all messages from <Name>.
/INVITE ALL	Private	Invite everyone into your private channel.
/INVITE <Name>	Private	Invite <Name> into your private channel.
/JOIN	Private	Create a private channel.
/JOIN <Channel>	Global	Join a public or private channel if invited.
/LIST	Global	Display all users and channels.
/MODERATE	Moderated	Start and stop moderated chat.
/NAME <Alias>	Globa	Change your name to <Alias>.
/NEXT	Moderated	Give the next user their turn to talk.
/PAGE <Name>	Global	Page a message to a user on the BBS.
/QUIT	Global	End the user's chat session and return to the BBS. The same as /EXIT.
/RESPOND <Name>	Global	Respond in privacy to a /TALK request from another user.

Keyword	Chat type	Explanation
/SKIPNEXT	Moderated	Skip the next user in the /ASK queue.
/TALK	Global	Talk to a another user in privacy.
/TOPIC <TopicSubject>	Global Private	Change the channel topic. Available only to the owner of the channel.
/UNIGNORE <Name>	Global	Turn on messages from a user you previously ignored.
/UNINVITE ALL	Private	Kick all users out of your private channel.
/UNINVITE <Name>	Private	Kick <Name> out of your private channel.
/USERS	Global	Same as "Who is on-line", for the BBS.
/WHOAMI	Global	Display who you are and your node.
/WHONEXT	Moderated	Show to the moderator who is next in line in the /ASK queue.
/<Name> <Message>	Global	Send <Name> a message.
//Message	Private	Continue the private chat set up with the /<SenderName/RecieverName> sequence.
<ActionWord> <Name>	Global	Execute an action word to <Name> user.

Messages

Off-line mail with *wcMAIL*

The most efficient way to read BBS mail is to ask the BBS to prepare a mail packet which you can download and read after you've disconnected from the BBS.

This is called "off-line mail", and it has a number of advantages over reading mail on-line. Here are just a few:

- You're not running up long distance charges while you read mail.
- You can take as long as you want to research, compose and polish your messages.
- You can use your favorite text editor or word processor to type your messages.
- You can save and print messages for later reference — even after the messages have expired on the BBS.

The most popular off-line mail program for *Wildcat!* is called *wcMAIL*, and it is part of every *Wildcat!* BBS package. If the Sysop has decided to install *wcMAIL* on the BBS, and has made it available for callers, you can select the message menu command for *wcMAIL* to download your mail.

Selecting conferences

Most BBSs are organized into "conference areas". Each conference area consists of messages on a particular topic such as "product support" or "debate" or "technical help", along with file areas, bulletins, questionnaires, doors, and so on.

wcMAIL only retrieves mail in conferences areas you have selected and skips the rest. So, to receive any mail at all, you must first select some conferences. To do this, select the *wcMAIL* menu command "Your settings", then "Select conferences to scan".

```
Mail door settings for                : IVO ANDRIC

[ 1] Packet format                    : QWK
[ 2] Packer                           : PKZIP 1.X
[ 3] Protocol                         : Zmodem
[ 4] Include new files list           : NO
[ 5] New files date                   : 10/06/94
[ 6] Include new bulletins            : NO
[ 7] Maximum messages per conference: 1000
[ 8] Maximum messages per packet      : 3000
[ 9] Attachment file size limit       : 0K (Your attachments only)
[10] Download mail from you           : NO
[11] Goodbye after upload             : NO
[12] Enhanced script prompts          : NO
[13] Small CONTROL.DAT                : NO

[S]elect conferences to scan
[R]eset all message pointers
[U]pload MUSTANG.PTR file to reset pointers

Setting to change [1..12], [H]elp, [Q]uit? [  ]


 IVO ANDRIC          176 119  Local  WILDCAT!   |Key|Prn|Pag|Bel|Cap|
```

wcMAIL will show you a list of all the conferences you have access to on the BBS.

```
[S]elect conferences to scan
[R]eset all message pointers
[U]pload MUSTANG.PTR file to reset pointers

Setting to change [1..12], [H]elp, [Q]uit? [S ]

    0.        Private E-Mail ONLY          1.        WC! General
    2.        WC! Doors                    3.        WC! Modem Operation
    4.        WC! External Protocols       5.        WC! Net & Echomail
    6.        WC! Platinum, digi/fossil    7.        WC! LANtastic Net
    8.        WC! Novell Network           9.        WC! DESQview
   10.        WC! wcMAIL QWK/Tomcat       11.        wcPRO Utilities
   12.        wcGATE Internet/MHS         13.        wcCODE Language
   14.        QmodemPro/DOS               15.        QmodemPro/DOS Scripts
   16.        QmodemPro for Windows       17.        QmodemPro for Win/Scripts
   18.        OLX/SLMR Mail Reader        19.        WILDCAT! Test-Drive Help
   20.        QMODEM TD & Bundle Help     21.        General Chit-Chat
   22.        RIP Graphics & Icons        23.        3rd Party Product Ques.
   24.        WC! Windows/WinNT           25.        WC! OS/2
   26.        Internet-EMAIL              80.        [Pvt] MSI Sales

- End of conference list -

Conference [0..80], [L]ist, [S]ort, [F]ind, [T]oggles, [H]elp, [Q]uit? [  ]
 IVO ANDRIC          176 116  Local  WILDCAT!   |Key|Prn|Pag|Bel|Cap|
```

Notice that you can sort the conference list numerically or alphabetically with the "Sort" command. You can also search for conference names with the "Find" command. To select a conference, type the conference number at the prompt. This is the number in the far left of the column.

wcMAIL will give you four choices: all new messages, mail to you and mail to ALL, mail to you only, and no mail. When you select a conference, you would normally want to receive all new messages in that conference, so the correct answer in most cases here is "Yes".

What if I only want my own mail?

You may not be interested in reading everyone else's public messages. There are two ways to filter out messages for other people so that you only see your own mail. You can read your own mail only, or you can select mail addressed to you *and* public messages addressed to "ALL".

So many messages, so little time . . .

You can then select the message number to begin reading. Some conferences that have been active for a long time have a large number of messages in them. If you're selecting a conference like this for the first time, you probably don't want to download hundreds of old messages, so try setting your high message number a few messages back from the highest number in the conference.

When you have finished setting up each conference, *wcMAIL* returns you to the conference list so you can select more. Notice how the display changes when you select conferences:

```
[N] No, don't scan this conference

Conference scan option? Y
Messages in this conferences are numbered 1977 to 2679.
New high message number (use -nn for last nn messages)? [2649      ]

    0.        Private E-Mail ONLY          1. 39800 ×WC! General
    2.        WC! Doors                    3.        WC! Modem Operation
    4.        WC! External Protocols       5.     0 >WC! Net & Echomail
    6.        WC! Platinum, digi/fossil    7.        WC! LANtastic Net
    8.        WC! Novell Network           9.        WC! DESQview
   10.        WC! wcMAIL QWK/Tomcat       11.        wcPRO Utilities
   12.  2649 ×wcGATE Internet/MHS         13.        wcCODE Language
   14.        QmodemPro/DOS               15.        QmodemPro/DOS Scripts
   16.        QmodemPro for Windows       17.        QmodemPro for Win/Scripts
   18.        OLX/SLMR Mail Reader        19.        WILDCAT! Test-Drive Help
   20.        QMODEM TD & Bundle Help     21.        General Chit-Chat
   22.        RIP Graphics & Icons        23.        3rd Party Product Ques.
   24.     0 ×WC! Windows/WinNT           25.   101 ×WC! OS/2
   26.        Internet-EMAIL              80.        [Pvt] MSI Sales

- End of conference list -

Conference [0..80], [L]ist, [S]ort, [F]ind, [T]oggles, [H]elp, [Q]uit? [  ]
 IVO ANDRIC          176 115  Local  WILDCAT!   |Key|Prn|Pag|Bel|Cap|
```

You can always go back and change your settings later if you don't like the results. Type Q for "Quit" when you have finished.

Other settings

Besides conference selections, there are several other settings you can customize.

Packet format

Off-line mail packets are prepared in a special format designed for QWK packet mail readers such as Off-Line Xpress. You cannot read these packets with an ordinary text browser or word processor. QWK-compatible mail readers are available for many types of PCs, including Macintosh and Amiga.

If you are unable to use a QWK packet mail reader on your computer, you can receive messages as ASCII text. You will not be able to enter re-

plies off-line and upload them to the mail door if you select text file packets, nor will you be able to do off-line file requests.

Packer

The many files that go into a mail packet are compressed, or packed, using a utility such as PKZIP. This saves disk space and transfer time, and make it possible to send several files in a single "envelope".

For most people, the correct setting here is Z, for PKZIP Archive. If you cannot use PKZIP for some reason, select a packer format that is compatible with the one you use.

New files

wcMAIL will send you a list of new files on the BBS with your mail packets, if you like — just set the "include new files list" option to "Yes". The "new files date" is updated automatically by *Wildcat!* every time you list new files or download a mail packet. You can change it here by entering a different date.

Bulletins

If you want to include new bulletins in your mail packets, change the "Include new bulletins" option to "Yes".

Maximums

Depending on the capabilities of your mail reader, your baud rate, and the amount of time you can use the BBS per call, you may want to change the maximum number of messages per conference and per packet.

Some mail readers cannot handle large packets, or more than 200 messages per conference, so keep these limitations in mind if you decide to change the per-packet and per-conference maximums here.

Small CONTROL.DAT

Some mail readers have problems on systems with a very large number of conferences. Set this option to YES to limit the size of the conference information file CONTROL.DAT to include only the conferences you have selected.

Attachments

You can choose whether or not to receive files attached to messages automatically in your mail packets. There are two options to select here: "All attachments" (messages addressed to anyone), and "Your attachments only" (only messages addressed to you). A second option allows you to set the maximum size file attachment that will be included in your packet.

If a message has an attachment that was not included in your packet (it was either too big or you chose to receive only attachments on messages addressed to you), you can request the attachment by sending a control message to *wcMAIL* in your next reply packet. We'll show you how a little later on.

Mail from you

Some people like to get their own messages back when they download a mail packet, some don't. If you want to receive copies of messages you've sent in your next mail packet, change this option to "Yes."

Scripting

Since off-line mail removes all kinds of time constraints on your BBS usage, there's really no need for you to even be at the keyboard when your computer is picking up mail from the BBS. Many people like to use scripts or automated "robot mail" programs that call the BBS in the middle of the night when rates are low and the phone lines are least likely to be busy.

Two options help you make the most of your automated mail runs. The first is to use "enhanced script prompts". This option sends a standard set of text prompts in addition to the customizable prompts the Sysop may have

added to *wcMAIL*. This way, you can use the same scripts on many different BBSs and mail doors, with very little modification.

Here is a list of enhanced script prompts used by *wcMAIL*:

<CONFIGURE>	Your Settings main menu
<DLASK>	Would you like to receive this packet?
<DOWNLOAD>	Prepare to download [filename].QWK file
<GOODBYEASK>	Are you sure you want to log off?
<NOTHINGDL>	Nothing was found to download
<PROTOCOL>	Choose a transfer protocol
<UPLOAD>	Get ready to upload [filename].REP file
<UPPTRFILE>	Get ready to upload [filename].PTR file
<WCMAIL>	Main *wcMAIL* prompt

The second option is "Good-bye after upload". If you upload reply packets with a large number of messages (net status Sysops take note), you may not want to wait around while *wcMAIL* unpacks and inserts your replies. If you answer "Yes" to this option, *wcMAIL* will automatically disconnect 10 seconds after it gets your reply packet, and will import your replies after it logs you off.

Downloading messages

```
Conference : Private E-Mail ONLY                    Time Left : 113 Mins

     QWK command:  D

Preparing mail packet...
Press Ctrl+C to abort scan

     Total message limit: 3000
Conference message limit: 1000
                                          High    Last  Number     To
 Number  Conference                     Message    Read   Found    You  Attach
-------------------------------------------------------------------------------
     1   WC! General                     39895   39800      36      0
    12   wcGATE Internet/MHS              2679    2649      21      0
    24   WC! Windows/WinNT                   1       0       0      0
    25   WC! OS/2                          104     101       3      0

Total messages found: 60

Would you like to receive this packet?
[Y]es, [N]o, [Q]uit when done?
 IVO ANDRIC          176 112  Local  WILDCAT!    |Key|Prn|Pag|Bel|Cap|
```

When you download messages, *wcMAIL* scans all the conferences you have selected, and shows on the screen how many messages it finds. When it has finished scanning for messages, *wcMAIL* will ask you if you'd like to receive the packet. You also have the option to disconnect when the download is complete.

Downloading a single conference

You can download messages from a single conference by specifying it at the wcMAIL main menu, e.g. "D 123" will download only conference 123. It will also ask you for a starting point: the default is your last read pointer for that conference.

Reading off-line

Now that you've got your QWK mail packet, what do you do with it? You'll need a QWK-compatible mail packet reader. You can find test drive or shareware versions of many different QWK readers on most BBSs.

We encourage you to try Off-Line Xpress Test Drive, the QWK compatible mail reader from Mustang Software, Inc. (the authors of *Wildcat!* BBS). It's easy and fun to use, and works with any QWK-compatible mail door.

The dog ate my mail packet. How can I get my messages back?

One of the files in your QWK mail packet is a message pointer file, which contains your high message numbers for each conference on the BBS. If you lose a mail packet, try extracting the pointer file from another recent packet from the same BBS, then upload it to *wcMAIL*.

Here's how to do it for a mail packet named MUSTANG.QWK with PKZIP and PKUNZIP as your archive choice. Type these commands at the DOS prompt in the directory where your mail packets are stored:

```
PKUNZIP MUSTANG.QWK MUSTANG.PTR [ENTER]
```

If you use some other type of packer, substitute the proper command.

Now, copy the .PTR file to the "upload" directory for your communication program. Log onto the BBS, get into *wcMAIL* , go to "Your Settings ", "Update message pointers", and select the command "Upload MUSTANG.PTR File". Send the file you just extracted from the packet. When *wcMAIL* has received the file, it will ask you whether you want your high message numbers set to just before or just after the settings for the packet belonging to the .PTR file.

If you don't have a message pointer file, you can still reset your high message numbers. The "Your Settings" menu command "Reset all message pointers" lets you reset each conference to give you a certain number of messages below the top, or all messages after a certain date.

Resetting message pointers by date takes longer than resetting message pointers by number.

How to send Fido Netmail messages and Internet Email

E-mail messages destined for other systems require special addressing to reach their destinations properly. When you enter Email messages on-line, *Wildcat!* will prompt you for the correct address, and stores it automatically in the message information. When you enter messages off-line, however, you must add this information to the messages yourself.

The correct way to address a Fidonet Netmail message is to put the addressee's zone, net, node and (if necessary) point number on the first line of the message, like this:

```
->1:210/17
```

Don't forget the "->" routing symbol for Fidonet messages.

Internet E-mail addresses and subjects are often too long for the maximum character space allowed in the "To" and "Subject." fields of a message in QWK packet format. You can put long internet addresses in the first two lines of the message like this:

```
To: j.r.bob.dobbs@ultimate.slack.org (J.R. "Bob" Dobbs)
Subject: Am I really a sub-genius or not?
```

Uploading replies

When you are finished entering messages off-line, exit from your mail reader and let it pack up your replies into a "REP" packet. Log onto the BBS, go into the *wcMAIL* program, and type U for "Upload replies". When *wcMAIL* prompts you to begin the upload, use the command in your communication program to send the file.

wcMAIL will unpack the reply file you sent, and you can watch as it inserts each message into *Wildcat!'s* message conferences. Don't forget to delete the reply packet from your disk after you've uploaded it, so you don't keep sending the same old messages each time you upload more replies.

Requesting files

Some messages have files attached to them. If the message text indicates that the attachment was not included with the message (because you have not configured *wcMAIL* to send message attachments or the attachment was too large), you can request the attached file in your next mail packet.

Some mail readers allow you to request file attachments automatically, with a single command or mouse click. This creates a special "control message" which tells *wcMAIL* to include the attached file in the next mail packet. You can then ask the mail reader to automatically copy the attachment from the packet onto your disk.

If your mail reader does not handle file attachment requests automatically, you can create a control message to do it yourself. Enter a new message and address it to *wcMAIL*. The subject of the message should be REQUEST, followed by the message number with the attached file you want. The conference for the request should be the same conference as the message with the attachment.

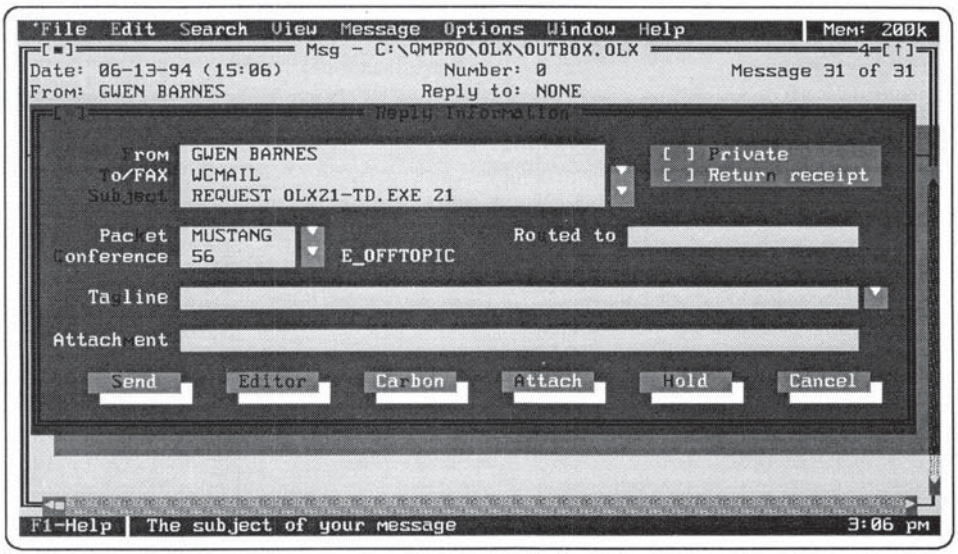
```
 File  Edit  Search  View  Message  Options  Window  Help          Mem: 207k
[■]═══════════ Msg - C:\QMPRO\OLX\OUTBOX.OLX ═══════════4=[↑]
Date: 06-13-94 (15:05)          Number: 0              Message 30 of 30
From: GWEN BARNES              Reply to: NONE          Read      Replied
  To: WCMAIL                    Received: NO  (PVT)
Subj: REQUEST 9096            Conference: MUSTANG (56) E_OFFTOPIC

Control message generated by OLX 1.51a

F1-Help  Enter-Next  Space-Page  Minus-Prev  Ins-Index  R-Reply      3:05 pm
```

You can also request other files from the BBS, so long as the files are recorded in *Wildcat!'s* file database. Your control message has the same format as the message attachment requests, but in this case the subject line is REQUEST, followed by the name of the file.

If the same file name exists in more than one file area on the BBS, you need to specify the file area number after the file name. Here's an example of how you would request the test-drive version of Off-Line Xpress in a message addressed to *wcMAIL*:



You cannot request password-protected files with an off-line message, or files in areas you don't have access to.

Off-line configuration with control messages

Besides file requests, there are several other things you can do with control messages. You can add and drop conferences from your message scans, and you can reset the high message number in a conference.

The manual or on-line help for your mail reader will tell you how to do this.

Using *wcMAIL* on a LAN

If you use *Wildcat!* on a Local Area Network, you can run *wcMAIL* directly from your DOS prompt without having to log on to the BBS. To do this, change to the network drive and subdirectory where *Wildcat!* is installed, and type *wcMAIL*, followed by your user name on the BBS. You can upload and download messages locally just as if you were connected by modem.

wcMAIL normally expects to find QWK and REP packets in your "node work" directory. If you prefer, you can use a different directory, for instance your local hard drive, for mail packets. If you add the command

```
SET WCMLOCAL=C:\OLX
```

to your AUTOEXEC.BAT file, *wcMAIL* will automatically create your mail packets, and look for your reply packets, in a directory called "OLX" (for Off-Line Xpress) on your C: drive.

To change the default work directory, add

```
SET WCMTEMP=Drive\path
```

This allows you to use a local drive or a RAM drive for *wcMAIL* processing, if this would be faster than using a network drive.

Reading mail on-line

You can also read mail on-line, if you prefer. *Wildcat!* offers many options for reading, searching and marking messages.

Selecting conferences to scan

You can of course read messages on-line by joining each conference you want to read, and reading the mail in that conference, then joining another conference and reading, and so on.

To save you time when you read mail in several conference areas, you can select the conferences you want to read on a regular basis. That way, you can read the conferences you're interested in, skip the ones you're not interested in, and do it with a single command.

To select your favorite conferences, use the message menu command "Update scanned confs".

```
Conferences available:

    0)     Private E-Mail ONLY          1) *  WC! General
    2)     WC! Doors                    3)    WC! Modem Operation
    4)     WC! External Protocols       5) *  WC! Net & Echomail
    6)     WC! IM (DigiBoard) Area      7)    WC! LANtastic Net
    8)     WC! Novell Network           9)    WC! DESQview
   10) *   WC! Tomcat/Tnet             11) *  wcPRO Utilities
   12) *   wcUUCP Internet Gateway     13) *  wcMHS Novell MHS Gateway
   14) *   QmodemPro/DOS               15) *  QmodemPro/DOS Scripts
   16) *   QmodemPro for Windows       17) *  QmodemPro for Win/Scripts
   18) *   OLX/SLMR Mail Reader        19) *  WILDCAT! Test-Drive Help
   20) *   QMODEM TD & Bundle Help     21) *  General Chit-Chat
   22)     RIP Graphics & Icons        23) *  3rd Party Developers
   24) *   UUCP-Wildcat!               25) *  UUCP-Qmodem
   26) *   Internet-EMAIL              27) *  Beta WILDCAT!
   28) *   Beta QmodemPro/WIN          29) *  Beta QmodemPro/DOS
   30) *   Beta wcGATE                 32) *  Beta PRO! Series
   34) *   Beta OLX                    35) *  Beta QMGATE
   36) *   Beta wcUUCP                 40) *  PVT - WISH LIST WILDCAT!
   41)     PVT - WISH LIST QMODEMPRO   42)    PVT - WISH LIST QMWINDOWS

[#-#], Select [A]ll, [D]eselect all, [H]elp, [S]top?

 GWEN BARNES          176 881  Local  STAFF        |Key|Prn|Pag|Bel|Cap|m177k,s13k
```

Selected conferences have a "*" between the conference number and name. To select a conference, type the conference number at the prompt. You can type several numbers on the same prompt line, separated by spaces, and you can select a range of conferences. The following command entry turns on conferences 1, 2, 9 through 13, and 42:

```
1 2 9-13 42
```

You can de-select conferences the same way. If a conference is selected, type the conference number at the prompt to turn it off.

Checking for mail

If you skipped the personal mail scan when you logged on, you can still check for personal unread messages later on. Use the message menu command "Check for mail". *Wildcat!* will scan all conferences you have access to, and will list any unread mail addressed to you.

To read your unread personal mail, select the message menu command "Read messages", then select "Unread personal", and choose All conferences, Selected conferences or Current conference.

Reading

Wildcat! keeps track of the number of messages you've already read on the BBS so you don't have to reread old mail or guess where to start reading new mail.

When you select the message menu command "read messages", *Wildcat!* will give you several choices:

```
Message Menu                    Wildcat! v4

E  Enter New Msg        Q  Quit to Main          U  Update Confs
R  Read Messages        F  File Menu             S  Scan Messages
N  New Messages         H  Help Level            C  Check Personal
!  Read Unread          J  Join Conference       T  Transfer
   Personal Mail        Y  Your Settings            QWK/REP Packets
                        ?  Command Help
                        G  Logoff System

0  Other Info: Testdrives - Product Info via FAX - Orders

Conference : Private E-Mail ONLY        In Chat : 0     Time Left : 979

   Message Menu Command >> R

Read from [5900-27381], [H]elp, [N]ew mail, [S]earch, [U]nread personal,
[J]oin, or [ENTER] to quit (add * for snoop on)?

GWEN BARNES        176 979  Local  STAFF      |Key|Prn|Pag|Bel|Cap|
```

Read type	Notes
Read from	If you want to start reading at a specific message number, type the number here.
Marked	Read messages you marked with the "search" command
New mail	Read only new messages that you haven't already read.
Search	Search for messages containing specific information
Unread personal	Read only new messages addressed to you
Join	Join another conference

If you choose to read mail by number, new mail, or unread personal, *Wildcat!* will then ask if you want to read mail in the current conference, selected conferences, or all conferences. The default is selected conferences.

At the end of each message, you will see a list of commands. You can read forwards or backwards, or jump to a particular message number. The table following this illustration shows you all the end of message commands you can use, depending on your security level.

```
From    : MSI SYSOP (SysOp)                    Number    : 39896 of 39896
To      : IVO ANDRIC                           Date      : 10/06/94 12:58p
Subject : I am a user!                         Reference : 39894
Read    : NO                                   Private   : YES
Conf    : 1 - WC! General

Gwen,

Your comment has been forwarded to a tech in Conference 1, WC! General
Help.  Your message should be answered within 24 hours.  To help speed
up response time in the future, you can leave a message directly in the
appropriate conference addressed to SYSOP.  Thank you.

Mustang Software, Inc.


Read mode : (39896+)
Msg Read [29310 - 39896], [E]dit, [F]orward, [H]elp, [K]ill,
[N]onstop, [W]rite, [P]rint, [Q]uit, [R]eply, [S]ysop, [T]hread,
[ENTER = next]?


 GWEN BARNES          176 990  Local  STAFF      |Key|Prn|Pag|Bel|Cap|
```

Command type	Notes
Read mode	Informational only. Shows current message number, read direction, and mode: all, selected, search, thread, and so on.
Msg Read [# - #]	The numbers are the lowest and highest message number in the current conference. Enter the message number to jump to a specific message.
+	Read forward from low to high message numbers.
-	Read backward from high to low message numbers.
Edit	Loads the current message into the message editor so you can modify it. This prompt only appears if you wrote the message originally, or you have message Sysop access.
Forward	Sends a copy of this message to someone else.
Kill	Deletes the current message. This prompt only appears if the message was sent to you or written by you, or if you have Sysop access.

Command type	Notes
Nonstop	Shows all messages without screen pauses. Press the spacebar to stop.
Write	Send a new message in the current conference.
Print	Copies the current message to the printer, or your choice of file names. This option only appears if you're logged on locally.
Quit	Quit reading messages and return to the message read prompt.
Reply	Reply to the current message. Your message is automatically addressed back to the sender of the message you are replying to.
Sysop	Shows additional message commands: toggle public/private, move, copy, lookup user, access file database and undelete. This prompt only shows up if you have Sysop or message Sysop access.
Thread	Read the next message with the same subject line. Add a "–" to read backwards by subject.
Enter = next	Read the next message in numerical order. Direction depends on read mode, + for forward, - for backwards.

Searching for messages

There are two ways to search for messages. Both methods let you search for specific information in a message: the name of the sender or recipient, subject, message number, and text within a message. Depending on the kind of text you search for, it can take some time for *Wildcat!* to find all messages matching your search request. You can abort the search at any time by pressing SPACE.

Searching and marking message headers

The first method is the message menu command "Search messages". This method finds and lists all messages listing your search criteria. Only the message header information is shown: message number, from, to, and subject.

Each message header is shown with a line number in the left-hand column of the screen.

```
Scanning conference 5 - MSI Sales
[ 1] Msg:399   Fm:EARTHA AZURE     To:BOB ALLMAN       Sb:Comment 06/12/94 10:28a
[ 2] Msg:400   Fm:ROBERT OCHRE     To:BOB ALLMAN       Sb:Comment 06/12/94 4:41p
[ 3] Msg:401   Fm:WALTER OFFRAMP   To:BOB ALLMAN       Sb:Comment 06/12/94 4:58p
[ 4] Msg:402   Fm:AL KNOBULATOR    To:GARA ZEIGLER     Sb:Comment 06/11/94 2:52p
[ 5] Msg:403   Fm:JANE COVERUP     To:GARA ZEIGLER     Sb:Comment 06/11/94 5:56p
[ 6] Msg:404   Fm:PETER PLYERS     To:RICK HEMING      Sb:Comment 06/12/94 10:28a
[ 7] Msg:405   Fm:BOB BASEBALL     To:MSI SYSOP        Sb:Comment 06/11/94 7:34a
[ 8] Msg:406   Fm:WILDCAT! MAIL R  To:SCOTT RISING     Sb:Return receipt
[ 9] Msg:407   Fm:RUDY CATSPAW     To:BOB ALLMAN       Sb:Comment 06/12/94 11:35p
[10] Msg:408   Fm:ERNESTINE SCRAT  To:BOB ALLMAN       Sb:Comment 06/09/94 8:11a
[11] Msg:409   Fm:MSI SYSOP        To:DAVE OVERSHOE    Sb:Comment 06/11/94 7:34a
[12] Msg:410   Fm:JANE CALIFORNIA  To:JENNIE WILSON    Sb:Monitor/msi
[13] Msg:411   Fm:CHUCK CARTEL     To:MSI SYSOP        Sb:Comment 06/12/94 11:35p
[14] Msg:412   Fm:BOB ALLMAN       To:ALPHONSE GLADIO  Sb:Comment 06/09/94 8:11a
[15] Msg:413   Fm:MATTHEW BUTTERD  To:BOB ALLMAN       Sb:Comment 06/13/94 2:38p
[16] Msg:414   Fm:BOB ALLMAN       To:GWEN BARNES      Sb:Comment 06/03/94 1:32p
[C]ontinue, [M]ark, [N]onstop, [S]top? [C]

 Name GWEN BARNES, Mustang Software, Inc.          Age 39  File
 Node 176 Baud Local   Time 996   Sec SYSOP     |Key|Prn|Pag|Bel|Cap|m169k,s12k
```

You can mark the messages you want to read by typing M then the line number at the prompt, and continue searching until all the matching messages are found. To read your marked messages, select the "Read messages" command, and select Marked.

Searching for full message text

You can also use the Search command from the "Read Messages" prompt. Enter your search information in the same way as the previous example. *Wildcat!* will show you the full text of each message it finds.

Search type	Notes
From / To	Finds messages to or from anyone whose name matches the full or partial name you put here.
Subject	Finds messages whose subjects match the full or partial subject in this field
Msg Body	Finds messages containing this text anywhere in the message body
Number	Begins your search at this message number
Direction	Default searches from oldest to newest message in conference. Change this to search backwards.
Conference	Search in current, selected or all conferences

Sending mail on-line

To send a message on-line, you create your message by typing it into one of *Wildcat's* two message editors: the Line Editor or the Full-Screen Editor. The line editor is a simple line by line editor anyone can use, regardless of your computer type or terminal emulation. The full-screen editor requires an ANSI-compatible terminal emulation.

You can select your editor preference from the main menu command "Your Settings" so *Wildcat!* won't ask you what editor to use every time you enter a message —you can always switch from one editor to the other while you're entering a message.

Line Editor

You can enter one line of text at a time using the line editor. The only editing key you can use to correct mistakes on the current line is the back-

space key. The line editor wraps long lines to the next message line automatically, or you can press ENTER to go to the next line.

If you see a mistake you want to fix, press ENTER twice to get to the "Edit Message" prompt, and select Edit. *Wildcat!* will ask you for the number of the line to edit.

```
[Z]...............Dos hook 2          [C]......Check personal mail

Conf: "[5] - MSI Sales", time on 0, with 992 remaining.

Message Menu: [Q J R S E K G H ? F D U 1 X Z C] ? E

Enter conference, [L]ist, or [ENTER] = "5 - MSI Sales"? [      ]

    To [ENTER] = ALL? [sysop                    ]
             Subject? [How much is Wildcat?     ]
      Return receipt? [y/N]? [N]
  Full screen editor? [Y/n]? [N]

      Enter your text. [ENTER] alone to stop. (72 chars/line, 150 lines max)
   (----+----1----+----2----+----3----+----4----+----5----+----6----+----7--)
  1: this is a message to shw how to use th Edit command.
  2:

Edit Message [C]ontinue,     [I]nsert, [V]iew, [S]ave, [A]bort, Ca[r]bon
Su[b]ject,   [F]ull Screen,  [D]elete, [L]ist, [H]elp, [Q]uote, At[t]ach
S[p]elling,  [W]ord Replace, [U]pload, [E]dit ? [E]

Enter line to edit [1-1]? [   ]
 Name GWEN BARNES, Mustang Software, Inc.            Age 39  File
 Node 176 Baud Local   Time 991   Sec SYSOP     |Key|Prn|Pag|Bel|Cap|m174k,s10k
```

Wildcat! will then ask you what text to change. For example, if the message line reads:

```
this is a message to shw how to use th Edit command.
```

Obviously we need to change two errors, the word "th" for "the" and "shw" for "show". To perform the search and replace action the Line Editor uses the syntax of OldString;NewString. The OldString is the string of characters that will uniquely identify the item to be changed and the NewString is the data to replace the OldString. So let's fix "shw" by using the command

```
shw;show
```

This command will scan for the word "shw" and replace it with "show". Now the harder correction. Notice that the first occurrence of the incorrect text "th" is actually a part of correct text "this" in the first word. Therefore you cannot simply use the command

```
th;the
```

If you did then the new message would read "theis is a message..." The correct method is to broaden the OldString search to include additional unique text such as

```
use th;use the
```

Notice that we can replace any number of letters even with a shorter or longer NewString.

You can make more corrections, if needed. Press [ENTER] on a blank line to get back to the Edit Message prompt.

Full Screen Editor

The full screen editor lets you move the cursor around the editing page using cursor keys and [HOME], [END], [PG UP] and [PG DN] keys, very much like many word processors. This editor uses ANSI codes to tell your cursor where it should move on the screen, so you should use some kind of ANSI terminal mode in your communications program.

Some of the Full Screen Editor keys are not available as standard ANSI codes and require additional emulation modes to operate properly. These keys include function keys and the "gray" editing keys such as [PG UP] and [PG DN]. If your communication program supports Doorway mode, you can use these extended editing keys in the full screen editor without them being interpreted as commands by your COM software.

You can turn on Doorway mode in most communication programs by typing [ALT] [=]. Without Doorway mode, only the cursor keys, [INS], [DEL], [←] (backspace), arrow keys and the [CTRL] keys will be active.

Type [ESC] or [CTRL] [Z] to leave the fullscreen editor. Here are the other keys you can use to edit and move text:

ANSI-BBS	DOORWAY	OPERATION
[CTRL] [A]	[CTRL] [←]	Cursor word left
[CTRL] [B]		Format paragraph
[CTRL] [C]	[PG DN]	Page down
[CTRL] [D]	[→]	Cursor right
[CTRL] [E]	[↑]	Cursor up
[CTRL] [F]	[CTRL] [→]	Cursor word right
[CTRL] [G]	[DEL]	Delete character at cursor
[CTRL] [H]	Backspace	Backspace (destructive)
[CTRL] [I]	[⇥]	Tab
[CTRL] [J]		Join lines
[CTRL] [K] [END]		Delete to end of line
[CTRL] [K] [B]		Begin marked block
[CTRL] [K] [K]		End marked block
[CTRL] [K] [V]		Move block
[CTRL] [K] [C]		Copy block
[CTRL] [K] [H]		Hide block (remove marking)
[CTRL] [K] [Y]		Delete block
[CTRL] [K] [P]		Display message
[CTRL] [L]		Re-draw screen
[CTRL] [M]	[ENTER]	New line
[CTRL] [N]		Split line
[CTRL] [P]	[END]	Cursor end of line
[CTRL] [Q] [Y]		Delete to end of line
[CTRL] [R]	[PG UP]	Page up
[CTRL] [S]	[←]	Cursor left
[CTRL] [T]		Delete word right

ANSI-BBS	DOORWAY	OPERATION
CTRL U		Escape
CTRL V	INS	Toggle insert mode
CTRL W	HOME	Cursor to start of line
CTRL X	↓	Cursor down
CTRL Y		Delete line
CTRL Z		Display help

Note that the full screen editor displayed on the local host system will show the last few line numbers wrapped on a single line above the user record screen, if displayed. This is normal operation and does not affect the remote display.

Because ANSI escape sequences are used to control cursor movement within the editor, you cannot upload ANSI files into messages. *Wildcat!* will strip the ESC character from any ANSI text files uploaded to the message editor.

Importing text into a message

You can easily import the contents of a prepared text file directly into a message. The text file must exist in the message database path for the current conference, and must have the extension .IMP (for "IMPort"). These text files can be any length, and *Wildcat!* will translate any color codes or @-macros when the file is displayed.

The file itself is not stored in the message, only the special import symbol "<<" and the filename. The import characters must be located at the beginning of a line, immediately followed by the text file name:

```
1: Here are a few suggestions:
2: <<HELP.IMP
```

You can include as many import files as you want in a message, and you can mix import files with typed text, so long as each is on a separate line.

Although this feature is available to anyone entering a valid import filename, it is usually used only by the Sysop or other local logon users who have access to place .IMP files in the message directory.

Message Commands

When you escape from the full screen or line editors, you will see a prompt line at the bottom of your screen that looks something like this:

```
   From : GWEN BARNES                    (TechWriter) [ESCAPE] Save/Edit
     To : IVO ANDRIC                                  [Ctrl-Z] Display Help
Subject : Welcome!                                    [Ctrl-V] Insert mode : On
   (----+----1----+----2----+----3----+----4----+----5----+----6----+----7--)
  1: Welcome to Mustang Software, Inc. BBS, Ivo. And congratulations on that
  2: Nobel Prize -- great work!
  3:
  4: Cheers
  5: Gwen
  6: MSI
  7:
  8:
  9:
 10:
 11:
 12:
 13:
 14:
 15:

Edit Message [C]ontinue,     [I]nsert, [V]iew, [S]ave, [A]bort, Ca[r]bon
Su[b]ject,   [F]ull Screen,  [D]elete, [L]ist, [H]elp, [Q]uote, At[t]ach
S[p]elling,  [W]ord Replace, [U]pload, [E]dit ? [ ]

 GWEN BARNES          176 108  Local  WILDCAT!   |Key|Prn|Pag|Bel|Cap|
```

Command	Notes
Continue	Returns to the line editor for additional message entry
Insert	Inserts additional lines between existing lines in the line editor
View	Shows the text of your message, with header, as it would appear to someone reading it on-line.
Save	Save the message you just wrote
Abort	Discard the message you just wrote, without saving

Command	Notes
Carbon	Saves the message and sends a carbon copy of the message to another user or users
Subject	Change the subject line of the message you just wrote
Full screen	Returns to the full screen editor for additional message entry
Delete	Deletes the lines you specify from the message
List	Lists the text of the current message, with line numbers
Quote	Import quoted text from the message you are replying to
Attach	Attach a file to this message
Spelling	Check the spelling of all text in the message you just wrote
Word replace	Replace the word you specify with another word throughout the message
Upload	Upload prepared text into the message, using a file transfer protocol
Edit	Allows you to edit text in a specific line in the line editor

Distribution lists

You can send a copy of a message to a group of people, without having to address carbon copies to each one individually, by addressing the message to a distribution list.

A distribution list is a file listing the names of people who should receive your message, one name per line. The file must be named GROUP###.LST, where ### is a number from 1 to 999, and it must be located in the display file path for Conference 0.

For instance, to send the members of GROUP1.LST a message, address the message to GROUP1. *Wildcat!* will automatically send a copy of the message to each person whose name is in the list.

Although this feature is available to anyone whose security profile allows entering a valid distribution list file name, it is usually used only by the Sysop or other local logon users who have access to place group files in the display file directory.

Attaching a file to a message

If the conference configuration allows it, you can attach a file to a message, and make both the message and the file available to anyone who has access to read it. A private message can be read and its attachment downloaded only by the sender, recipient, and the Sysop, whereas a public message and its attachment are available to anyone who has access to the conference.

The file attachment can be in any format — text, data, executable program, archive, or anything else. To attach a file, create your message first in the line editor or full screen editor, then exit from the editor and press T to attach a file.

Wildcat! will then ask you to type in the file name. This can be any legal DOS file name, and it does not necessarily have to match the name of the file you will actually be sending.

If you are logged on locally, *Wildcat!* will ask you for the actual drive, path, and file name for the attachment; if you are logged on over a modem connection, you will be prompted to begin your upload.

When *Wildcat!* has received the file, it will be saved as part of the message. The recipient of the message can download the attachment by typing D at the prompt at the end of the message.

Quoting

When you reply to a message, it is considered helpful to quote some of the text you are replying to, so the recipient of your message can easily see the context of your reply. The easiest way to do this is to select "auto quote replies" in your user preferences, from the main menu command "Change user settings".

Wildcat! will automatically load the text of the message you're replying to, with quote prefixes. You can delete the lines you don't want to keep in your reply, then go ahead and type your message.

```
   From : GWEN BARNES                    (Techwriter) [ESCAPE] Save/Edit
     To : BOB ALLMAN                                  [Ctrl-Z] Display Help
Subject : WC 4.10 AUTO UPDATE PLAN                    [Ctrl-V] Insert mode : On
   (----+----1----+----2----+----3----+----4----+----5----+----6----+----7--)
 1: -> We have your information on file and you should receive your v4.10
 2: -> update sometime in the next few weeks.  We are in the process of
 3: -> shipping them out now.
 4: ->
 5: -> Bob Allman
 6: -> MSI Sales
 7: ->
 8: ->
 9: -> ---
10: ->  ■ OLXWin 1.00 ■ Mustang Software, Inc. ■ Connecting The World
11:
12:
13:
14:
15:

GWEN BARNES          176 841  Local  STAFF      |Key|Prn|Pag|Bel|Cap|
```

You can still quote from a message even if you have this setting turned off. Use the Quote command to list the message you're replying to, and select the range of line numbers containing the text you want to quote.

```
 10: license.
 11:
 12: Our upgrade policy for Wildcat! is basically the difference in list
 13: price between the version you currently have and the version you desire,
 14: plus shipping.  Here are the current list prices for all Wildcat! versio
 15:
 16:  $129 - Wildcat! Single Line
 17:  $249 - Wildcat! MultiLine 10
 18:  $499 - Wildcat! MultiLine 48
 19:  $799 - Wildcat! MultiLine Platinum (1-250 nodes)
 20:
 21: For example, if you wish to upgrade from the Single Line version to
 22: the MultiLine 10 version, the cost would be $120 plus shipping (and
 23: sales tax if applicable).  You can give our sales office a call at
 24: 800-999-9619 or 805-873-2500 to get an exact price (including shipping
 25: and taxes).
 26:
 27: Bob Allman
 28: MSI Sales
 29:
 30: ---
 31:  ■ OLXWin 1.00 ■ Mustang Software, Inc. ■ Connecting The World

Enter starting line of quote [1-31]? [    ]
 GWEN BARNES          176 839  Local  STAFF        |Key|Prn|Pag|Bel|Cap|
```

Wildcat! will copy the lines you select into your new message. You can do this as many times in a message as you like.

Spelling Checker

Wildcat! has a built-in spelling checker in the message editor. This allows you to proofread your messages before you save them, and correct any spelling mistakes using a 120,000 word dictionary.

When the spelling checker finds a word that is not in its dictionary, the word will be highlighted, and you will see the following prompt:

```
  2:
  3:
  4:
  5:
  6:
  7:
  8:
  9:
 10:
 11:
 12:
 13:
 14:
 15:

Edit Message [C]ontinue,     [I]nsert, [V]iew, [S]ave, [A]bort
Su[b]ject,   [F]ull Screen,  [D]elete, [L]ist, [H]elp, [Q]uote, At[t]ach
S[p]elling,  [W]ord Replace, [U]pload, [E]dit ? [P]

Checking message text...

  1: This is a stest of the psrelling cheker.

[A]dd word, [S]kip always, Su[g]gest, [E]dit, [N]ext word, [Q]uit? [  ]
 GWEN BARNES         176 864  Local  STAFF      |Key|Prn|Pag|Bel|Cap|m169k,s11k
```

If you know the correct spelling, press E to edit the word, and type in the correct spelling. If you know the highlighted word is spelled correctly (perhaps it is a proper name), select S to skip checking the same word again. A Master Sysop can add words to the user dictionary, or suggest alternate spellings for the highlighted word.

```
  4:
  5:
  6:
  7:
  8:
  9:
 10:
 11:
 12:
 13:
 14:
 15:

Edit Message [C]ontinue,     [I]nsert, [V]iew, [S]ave, [A]bort
Su[b]ject,   [F]ull Screen,  [D]elete, [L]ist, [H]elp, [Q]uote, At[t]ach
S[p]elling,  [W]ord Replace, [U]pload, [E]dit ? [P]

Checking message text...

  1: This is a stest of the psrelling cheker.

[A]dd word, [S]kip always, Su[g]gest, [E]dit, [N]ext word, [Q]uit? [A ]

Edit word first? [Y/n]? [Y]
 GWEN BARNES          176 864  Local  STAFF        |Key|Prn|Pag|Bel|Cap|m169k,s10k
```

Select the correctly-spelled word by number, to replace the misspelled word.

Type N for Next word to continue checking, or Q to quit.

Joining conferences

You don't have to join a conference just to read mail if you use the "selected" or "all" commands while reading. You may need to join a specific conference, however, if the Sysop has defined conference-specific doors, file areas, bulletins or questionnaires. You will stay in any conference you join, even after you log off, until you change conferences again.

To change conferences, use the "Change conference" command. Enter the conference number at the prompt if you know it, or type L to list all the conferences available.

Files

If you're like most BBS users, the file section is probably your favorite part of the BBS. *Wildcat!* makes it easy for you to list, find and download files. You can even preview GIF files before you download them.

Listing

Most BBSs organize their file download areas by topic. That makes it easier to find the files you are looking for. You can view a list of file names by selecting the file menu command "List available files". If you press ENTER now, *Wildcat!* will start showing you all the files on the BBS, starting from the first file area you have access to.

If you want to narrow down your selections, type L again to list file areas. You can then mark the file areas you want to list by moving the highlight bar around the screen and tagging file areas with the SPACE. In double or single line view mode, you can mark file areas by typing each file area number at the prompt. A "*" character will show next to each file area you have selected. You can unmark file areas the same way.

```
Available areas: 1-53                                  [SPACE] = Mark/Unmark
Areas marked   : 0       Groups [ALL]                 [ESCAPE] = Quit to menu
——<top>————————————————————————————————————————————————————————————————————
  Uploads to be posted on BBS          WC! External Transfer Protocol
  Uploads for MSI-PRIVATE              WC4 Modem Files
  WC4 Utilities-Messages               WC! Networks, LANtastic/Novel
  WC4 Utilities-Files                  WC! Net & Echo Utilities
  WC4 Utilities-User                   WC! Prompt & Language Files
  WC4 wcCODE Applications              WC! Virus Scan & Upload Utils
  WC4 Utilities-Miscellaneous          WC! Sample Menus & Disp Files
  WC4 Utilities-Stats & Logging        General Files & Utilities
  WC! Doors-Games                      Compression Utilities
  WC! Doors-Call Back Verifiers        WC! 3.x Utilities
  WC! Doors-Security&Conversion        WC! 2.x & Test Drive Utilities
  WC! Doors-Miscellaneous              QmodemPro DOS Utilities
  WC! RIP Drawing & Utilities          QmodemPro for Windows Utils
  WC! RIP Graphics & Icons             Qmodem 5.x & Test Drive Utils
  WC! CD ROM Support                   MSI WILDCAT! release files
  WC! MP (Digi) Specific               MSI OLX release files
  WC! DESQview files & Info            MSI QMPro/DOS release files
————————————————————————————————————————————————————————————————————————————
   [ENTER] to list files,   [A]ll areas,     [R]edraw screen,   [Q]uit,
   [S]ort/Unsort areas,     [C]lear areas,   [G]roup list,      [H]elp?

 GWEN BARNES          176 837  Local  STAFF      |Key|Prn|Pag|Bel|Cap|
```

You can select as many file areas as you like. When you are finished with your selections, press [ENTER] to begin listing files.

```
Current area: 3-WC4 Utilities-Messages                [SPACE] = Mark/Unmark
Marked files: 0 - 0K          DL Time: 00:00:00      [ESCAPE] = Exit to areas
——<top>————————————————————————————————————————————————————————————————————
  CIMEX.ZIP      I WC 4.x,3.x util exports/imports CONFERENCE desc's, short nam
  CKMAIL11.ZIP   I Will exit with an errorlevel if last user left a message.
  PMSTR400.ZIP   I Post Master v4.0 - Command line message utility for WC! 4.x
  POSTER30.ZIP   I Poster 3.0-Top Ten Message Posting Contest for Wildcat! Post
  QWKSORT.EXE    I QWK sorter! This sorts the Messages.dat into CONFERENCE orde
  SORTCONF.ZIP   I WC4.x,3.x Util makes sorted, grouped conf. list Ver 1.52
  WCEDT200.ZIP   I Offline mail reader/User editor for Wildcat 4.x from PostMst
  WCEKEY.ZIP       Key for Wildcat 3.x version of WcEDIT! - expires 1/1/95
  WCQUOTE.ZIP    I A QWK quote analyser! See just how much YOUR users are over

——<bottom>————————————————————————————————————————————————<Last area>——
 Mark [A]ll,  [N]ext area,  [L]ist areas,  [R]ead file,  [E]dit marked, [H]elp
 [D]ownload,  [P]rev area,  File [I]nfo,   [V]iew file,  [S]et listing, [Q]uit

 GWEN BARNES        176 836  Local  STAFF      |Key|Prn|Pag|Bel|Cap|
```

Marking

The easiest way to select files to download is to mark them in the file listing, then download your list of marked files when you have finished selecting from the list.

In the ANSI file lister, move the highlight bar around your screen and use the [SPACE] to tag files. In single or double line mode, type [M] to mark files, then type in the line number of the file or files you want to mark. You can mark one file, many files, or a range of files on each screen.

Information on a file

The normal one-line or two-line file listings show only basic information about each file. If you want to see more information, for instance the up-

loader's name, an extended description, keywords and more, press [I] for "Information".

```
-------------------------- Detailed File Information --------------------------
Name: WC40REC.ZIP          File date     : 09/28/94          Downloads: 425
Size: 60,410               Last accessed: 10/06/94 6:43a     Cost     : 0
From: PAUL DAVIS           Download time: 00:00:00           Offline  : No
Area: MSI WILDCAT! release files                             Free flag: No
Keys: MODULES, STRUCTURES, EXAMPLES, WILDCAT!, DEVELOPERS
Desc: This is the modules, structures and examples for Wildcat! 4 Developers
---------------------------- Detailed Description ----------------------------
This file contains all the information you need to develop third party
applications for Wildcat! 4, we have included compilable source code as
well as examples on how to use the various units and objects that are
included. There are units for all three databases (User, File and
Message) as well as code for using the Quick Index files (i.e
ALLFILES.QX), all the units provided are the same code we used to
develop Wildcat! 4.

Enjoy
[W]rite author, [ENTER] to quit? [ ]

 GWEN BARNES        176 105  Local  WILDCAT!   |Key|Prn|Pag|Bel|Cap|
```

From this screen you can write a message to the uploader, and if you uploaded the file, you can edit the file description and other information if the Sysop has configured the BBS to allow this. If you have Sysop or file Sysop access, some additional commands are available.

Searching

The quickest way to find the files you are looking for is to search for them. By choosing search keywords carefully, you can get a list of the files you want, without the files you don't want.

```
N  New Files Since        Q  Quit To Main        V  View ZIP File
S  Search Files           M  Message Menu        I  Info on a File
L  List Files             J  Join A Conf         E  Edit Mark List
U  Upload Files           X  Qmodem Updates      T  Transfer Info
D  Download Files         Y  Your Settings       P  Personal Stats
↑  Read Unread            H  Help Level          A  Download List
   Personal Email         ?  Command Help           Of All Files
                          G  Goodbye

O  Other Info: Testdrives - Product Info via FAX - Orders

Conference : WC! General                 In Chat : 0    Time Left : 104

    File Menu Command >> S

File area [3-70], [L]ist, [H]elp, [Q]uit, [ENTER = All]?

Enter search request [ENTER] = abort? [dos and windows not os2            ]

Searching files, Press [SPACE] to stop search...
Sort search results [N = fastest results] [Y/n]? [Y]
 GWEN BARNES          176 103  Local  WILDCAT!   |Key|Prn|Pag|Bel|Cap|
```

Wildcat! recognizes the standard punctuation symbols & for "And", | for "Or" and ! for "Not", as well as the literal text "and", "or", "not", plus parentheses to group search items together. Here's how you would enter search keywords for all files about diet and fitness, but not weightlifting:

```
diet & fit ! weight
```

The command

```
diet and fit not weight
```

will produce the same search results.

Notice that we shorten the keywords to the minimum length required to distinguish the topic, to take into account differences in the way the words might be entered in the file descriptions.

To find all files about modems or communications, for Windows or DOS but not OS/2, try this search pattern:

```
(windows | DOS) & (modem | comm) !OS/2
```

The search may take some time if a large number of files match your search pattern. When *Wildcat!* has finished its initial search, it will display the number of possible matches it found, and ask if you want the listing sorted or unsorted — unsorted listings are faster. Press ENTER to see the list of files matching your search pattern.

You can mark, view and download files from this listing, just as you can from the other file listing formats.

Viewing

Before you download a file, you may want to view its contents if it is an archive, or read it on-line if it is a text file. There are two ways to select a file for viewing.

Reading a text file

If the file is uncompressed ASCII text, *Wildcat!* will display it on screen, with screen pauses for each page. You can page forwards and backwards in the file while you are viewing it.

Viewing a compressed file

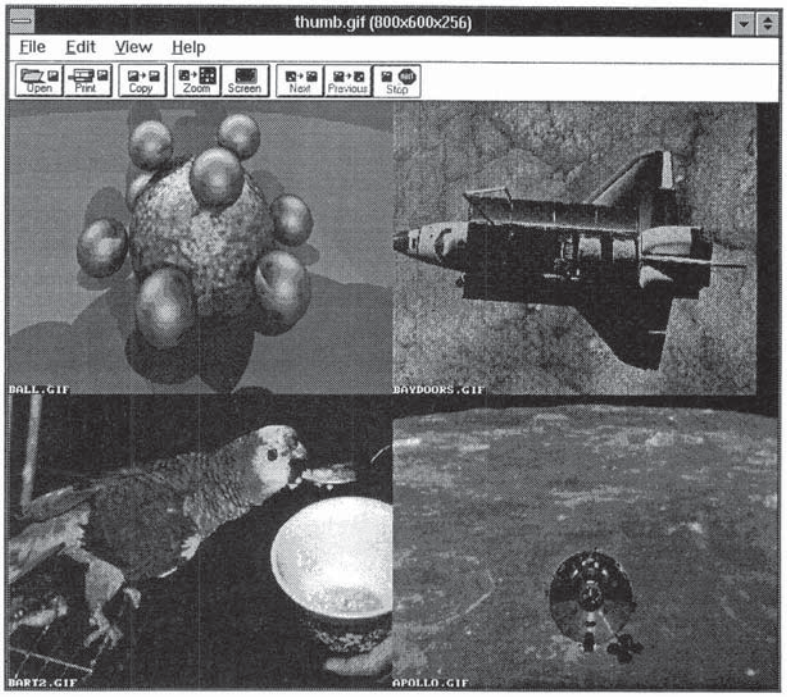
If the file is a compressed archive containing one or more files, you may see just a listing of the files within the archive, or you may have the option to extract and view individual files. What you see depends on how the Sysop has configured the file viewing function.

GIF Thumbnails

You can preview a selection of GIF files in "thumbnail" format, like a proof sheet, before downloading them. After viewing the "thumbnail" picture, you can then download only the files you want. To do this, list then mark the files you're interested in, then select the file menu command "Download".

Select "Thumbnail" from the Download menu, then select the screen resolution you would like. The higher the resolution, the longer it will take to

transmit the thumbnail file, and the more detailed the thumbnail pictures will be.



Notice that the file name is displayed on each picture.

You can edit the download list to remove any pictures you don't want to receive, then download the full-sized versions of the ones you have selected.

New Files

You may be interested in seeing all of the files that have been posted on the BBS since a certain date. To do this, select the file menu command "New files since".

You can specify an explicit date to begin searching, or a number of days backwards from today. *Wildcat!* will store your last "new files" date for you, so the next time you list new files, you will see everything posted since your last new files listing.

Uploading & Downloading

Uploading and Downloading mean copying files between computers over a modem connection using a transfer protocol. When a caller sends a file to the BBS, the process is called "Uploading", when the caller receives a file from the BBS it is called "Downloading" .

You can also upload and download files over a Local Area Network connection without a modem. The only difference is that *Wildcat!* copies the files for you between the network drive and your local drive.

Upload

To upload a file, you must first request the upload on the BBS, so it is ready to receive the file you are about to send. The usual command to upload a file in *Wildcat!* is "U", on the File Menu. *Wildcat!* will then prompt you to select a transfer protocol. Depending on the protocol you selected, you might be asked to type the name of the file you wish to send, along with other information about the file transfer.

When you have finished entering this information, *Wildcat!*. will prompt you to begin uploading the file.

You then tell your communications software (for instance *QmodemPro*) to begin sending the file. In *QmodemPro,* select "Upload" from the "Files" section of the *QmodemPro* main menu, or press the PG UP key. Then enter the name for each file you want to transfer.

When transferring files, both the sending and receiving computers must use the same file transfer protocol. This means that if you select Xmodem-1k on the BBS, you also must select Xmodem-1k from the protocol selection window in your communications software.

Download

Downloading is much the same as uploading. First, you request the download from the BBS, specifying the names of the files you want to receive, and the transfer protocol to use. When the BBS signals it is ready to begin sending the file, select the "Download" in your communications software, select the protocol to use (the same one you selected on the BBS, of course), then enter the destination file name and directory if necessary, and begin the download.

Batch downloads

You can queue up as many files as your security level, download ratio, and available time permit, and download all the files in one batch. All *Wildcat!* file download protocols support batch transfers, even those that normally can only send a single file at a time.

For single-file protocols such as Xmodem, you will need to start each file download when *Wildcat!* prompts you, by typing in the destination file name and beginning the transfer with your communication software.

For batch protocols such as Ymodem and Zmodem, all you need to do is start the first file downloading, then sit back and wait for all the files to be transmitted.

If you like, you can let *Wildcat!* log you off automatically when the last file has been received — select "Logoff after download" instead of "Yes" when you begin a batch download. You will have 10 seconds to abort the logoff when the last file has been sent.

Edit marked list

You can add and remove files from your download queue with the file menu command "Edit marked list". This command will show you a list of all the files you have queued up, with estimated download times for each file, and a total estimated download time for the entire batch. The following illustration shows a local download — the actual download times for a modem connection would be calculated based on the caller's baud rate.

```
N  New Files Since      M  Message Menu        D  Download Files
S  Search Files         J  Join A Conf         U  Upload Files
P  Personal Stats       +  MSI Services        E  Edit Mark List
I  Info On A File       *  Test Drive Menu     F  Transfer Info
V  View A Zip File      H  Help Level          L  List Files
!  Read Unread          ?  Command Help        A  Download List
   Personal E-Mail      Y  Your Settings          Of Allfiles
                        G  Logoff System

Conference : WC! General                          Time Left : 876 Mins

File Menu Command >> E

                          Bytes        Time    Total Bytes  Total Time
                    -------------  ----------  -------------  ----------
[ 1] ALLFILES.ZIP        201,473         0.0        201,473         0.0
[ 2] NEWFILES.LST         34,265         0.0        235,738         0.0
[ 3] OLX-TD.EXE          228,665         0.0        464,403         0.0
[ 4] QM45TD-1.EXE        332,524         0.0        796,927         0.0
[ 5] QM45TD-2.EXE        361,618         0.0      1,158,545         0.0

Edit command [R]emove item, [C]lear list, [A]dd file, [Q]uit? [Q]
 GWEN BARNES          176 876  Local  STAFF      |Key|Prn|Pag|Bel|Cap|m181k,s14k
```

You can remove individual files from the list, or clear the list and remove all the files from your download queue. You can add files directly to the download list if you know the file name — if you don't know the name, try searching for the file, then mark it.

Protocols

A transfer protocol is a set of signals and responses combined with the data being transferred. Protocols provide error checking and correction, and monitor the progress of the file transfer.

Wildcat! already contains some of the most popular, efficient, and reliable transfer protocols. These are called "Internal Protocols", since they form part of the *Wildcat!* program.

Other transfer protocols can be added as "external" protocols, and one or more may be available depending on how the Sysop has configured the BBS.

ASCII

The ASCII protocol is used primarily for on-line text transfers. It does not support transferring binary data such as programs or compressed files.

ASCII does not perform any error-checking, which makes it very sensitive to line noise. Bursts of phone line interference will introduce stray characters that are not part of the data being transmitted. For this reason, ASCII transfers are not recommended unless they are used for specific purposes where that protocol is needed.

Xmodem

There are two Xmodem protocols presently in use. The original Xmodem uses a Checksum method to insure that the data received is the same as that which was sent. Checksum is a very simple error-detection method with an accuracy rate of 99.6%. Xmodem Checksum transmits 128-byte data blocks. This is not a particularly efficient protocol, since it must pause for acknowledgment between each block it transmits.

Xmodem CRC

Xmodem-CRC (Cyclic Redundancy Checking) is similar to Xmodem-Checksum, but uses a far more reliable error-detection algorithm (99.9969%.). If you accidentally select Xmodem Checksum at one end and Xmodem CRC at the other, *Wildcat!* will use the correct protocol automatically, rather than aborting the transfer.

Like Xmodem Checksum, Xmodem CRC is slow and inefficient, and is definitely not suitable for high speed connections unless you have no other option.

Xmodem-1k

Xmodem-1K is a modified version of Xmodem CRC, which uses 1024 byte blocks as opposed to Xmodem's 128 byte blocks. Because it transmits larger blocks of data, it pauses less often during the transfer, so it is considerably more efficient than its 128-byte-block cousins.

Ymodem

Ymodem is the true implementation of the Ymodem batch protocol and is sometimes called Ymodem Batch. This protocol supports the transfer of multiple files within a single session, without user intervention.

True Ymodem and Ymodem/G batch protocols include Header Records in the uploaded or downloaded data. These records contain file-dependent information such as name, size, and date/time stamps. Ymodem, like Xmodem 1K, sends 1024 byte blocks, and is a reasonably fast, efficient protocol.

Xmodem-1k/G & Ymodem/G

These two protocols are similar to their non-/G counterparts. /G protocols do not perform any error correction and rely on the error correction features of the modems. Modems equipped with internal protocols such as MNP; LAP-B, and X.PC help assure that communications are error free. You must enable hardware handshaking via the CTS/RTS signal lines with such modems.

/G protocols will not be available unless the following is true:

- CTS checking is enabled in the Device configuration.
- The two modems report an error-free connection during logon.

Make sure the modem does not always force the CTS signal ON. This will cause a modem buffer overflow resulting in an aborted transfer.

Xmodem-1K/G and Ymodem/G cannot re-send bad data blocks. In theory, there should be NO bad blocks of data in an error-free connection. If errors occur, they are likely to be caused by an improper setup either in the hardware or in the communication software

Zmodem

This is the popular streaming protocol put into the public domain by Telenet. Zmodem uses a variable sized block to transfer data over even the noisiest phone lines. Zmodem was designed as a Batch transfer protocol. As such, it shares the same transfer windows and allocation methods that the Ymodem protocol uses.

Should errors occur, Zmodem can tell the sending end exactly where to restart. Zmodem does not require a high-speed or error-correcting modem with MNP or V.42 to be effective. While it is not as fast as Ymodem/G or Xmodem-1K/G, it does perform well enough to have become a "standard" in the industry.

One of the benefits of Zmodem is Crash Recovery. This allows an aborted file transfer to be restarted later, without having to re-transmit the already received portion of the file. *Wildcat!* checks first to make sure the partial file has not changed. If it hasn't, then it picks up where it left off. If it has, then the file transfer restarts from the beginning.

Kermit

This protocol's main claim is not speed, but rather its ability to interact with many types of computers from mainframes to micros. It can cope with systems limited to seven-bit characters even when the data to be transmitted is in eight-bit form. All characters are translated into standard printable characters and reconstructed on the receiving end.

While not very efficient, Kermit is sometimes the only way to transfer data between different types of systems and terminals. It is not recommended for PC to PC transfers unless there is no other choice.

Yes, the Kermit protocol really *was* named after a frog.

Local uploads and downloads

You can upload and download files even when logged on locally. Rather than offering a selection of transfer protocols for a local file transfer, *Wildcat!* prompts you to enter a DOS drive, path and file name for the source of a file to upload (wildcards are allowed), or the DOS drive and path name for the destination of a file to download.

File ratios

Your Sysop may choose to impose file download ratios on callers. The ratio can be based on number of files, number of bytes, or both. For instance, if the file download ratio is 20:1, after you have downloaded 20 files you will have to upload one file to be able to download any more

files. If the byte ratio is 20:1, for every 20 kilobytes you download, you will have to upload 1 kilobyte of files.

Sysops who impose download ratios are generally interested in uploads of new shareware files they don't already have. A good way to lose your downloading privileges completely is to try to cheat the system by uploading files the Sysop already has, or uploading "junk" files the Sysop has to throw out.

Checking your ratio

You can check your file ratio status any time with the file menu command "Personal file statistics".

```
                    ××× Your File Statistics ×××

                 - Totals for today, Tue, 06/14/94 -
                     Your Totals        Daily Limits
Downloaded files     :          5               9,999
Kilobytes downloaded :      1,129               9,999

              - Totals since your first call on 01/05/94 -
                       Downloads             Uploads
Number of transfers  :        80                 29
Kilobytes transferred:    38,732             14,714

                     - Download vs Upload Ratios -
Number of files downloaded for each upload :     2.8

Kilobytes downloaded for each upload       :     2.6

Press [ENTER] to continue?

 GWEN BARNES        176 876  Local  STAFF      |Key|Prn|Pag|Bel|Cap|m181k,s14k
```

This screen shows the files you have downloaded today, and since your first call, and computes your file and byte download ratios.

Logging Off

When you log off, *Wildcat!* will close its files and update your user information, then it prepares to wait for the next caller.

The polite way to disconnect from a BBS is to type G for "Good-bye". You cannot hurt *Wildcat!* by hanging up (dropping carrier), and in some cases it is unavoidable — if your PC locks up, for instance, or you're stuck somewhere and don't know how to get out.

Some external programs and doors do not recover as gracefully as *Wildcat!*, however, and may cause problems for the Sysop if you make a habit of dropping carrier instead of logging off properly. If you have a problem that causes you to disconnect abruptly, why not leave a polite note to the Sysop explaining the situation on your next call.

Other menu commands

You may find other menu commands on the BBS that aren't described here, or you may find some of these commands on different menus. These additional commands may provide shortcuts to some of the procedures we have shown you in this section, or they may provide additional functions through *Wildcat!'s* programming language *wcCODE*.

Additional commands are usually self-explanatory — ask your Sysop for help with any options you don't understand.

5 - Managing a BBS

Get your room full of good air, then shut up the windows and keep it. It will keep for years. Anyway, don't keep using your lungs all the time. Let them rest.

Stephen Leacock

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Being a "Sysop"

The kinds of situations you'll encounter as Sysop of a BBS will vary depending on whether you operate a public or private system, whether your BBS is open to all, or to a select group of clients or customers.

Whatever the case, some of your callers are likely to be experienced enough with computers to enjoy the BBS, while others with less experience will be nervous, afraid, or even hostile.

Your callers will probably be looking to you for help when they run into problems on the BBS, and it pays to be as helpful as you can. Your goal, after all, is to make their experience positive enough that they will want to continue using the BBS.

Everyone's had the experience of going into a store ready to buy something, and walking out empty-handed because not only can't you find what you're looking for, but there are no sales staff to help you. Don't make the same mistake with your BBS.

Take the time to look at your BBS from the caller's perspective, and make sure the system is organized and well cared for. The BBS may be the only part of your organization or business your callers ever see — so be sure to show them the same courtesy and professionalism that your walk-in customers receive. Whether you run *Wildcat!* as a hobby or as part of your business, if you treat your callers well, they will be back.

Utilities no Sysop should be without

While it's possible to run a BBS with only the default configuration files provided with the *Wildcat!* package, there are some additional utilities you can use to make your everyday life as a Sysop, and as a computer user, easier and more efficient.

Many of the programs we mention here are "shareware" — these files are commercial-quality programs distributed electronically on the "honor system", and require a nominal payment to the author for continued use.

Backup utility

Nobody can imagine the problems a hard drive disaster can cause until they try to restore their systems to some kind of working order without a recent backup. Hours, weeks, and months of effort can go into the setup of your BBS, so why risk having to redo all that work by forgetting to make regular backups of your system?

A wide variety of backup options are available, ranging from simple but tedious methods like DOS BACKUP with box after box of floppy disks, to high-tech tape drives that record your files in the middle of the night. The worst way to back up your files, apart from not doing it at all, is to copy important files to another drive, partition or subdirectory while hoping your drive doesn't crash or run out of space and your computer isn't stolen. But even that is better than no backup at all.

The most practical option for small to medium-sized systems is one of the low-priced tape backup units that connect to your floppy drive controller or to the tape drive's own interface card. The software provided with these units can be run from a batch file during a system event, and the only attention it requires is for you to change the tape when it fills up. These units can typically store 40 to 250 megabytes of data on a single tape, depending on the level of data compression they use.

Larger systems can make use of high-capacity tape backup units that can store several *gigabytes* of data on a single tape. Also suggested are removable hard drive cartridges and recordable optical disks as backup media.

As a bare minimum, you should back up your user, file and message databases weekly, with a complete system backup once a month. You should also "rotate" your backup media — that is, you should have at least three complete sets of tapes to use for your master backups and incremental backups. Use set #1 the first week, #2 the second week, #3 the third week, then start over with set #1 the fourth week, and so on. That way, you can store one complete set of backup tapes off-site so you can restore your system in case of fire, burglary or other disaster.

A backup is of no use unless you can restore it. Take the time to learn how your backup and restore software works *before* you really need to use it. A "panic" situation is just about the worst time to learn how to use your restore program. After each master backup session, verify that the backup is good by selecting and restoring a few files from the tape back to your hard drive. Don't wait for a disk disaster to find out that your backup device is not functioning properly.

If you run a multi-line system, be aware that most backup software cannot back up open files on a network, or under Windows, DESQview or other multitasking operating environments. That means that unless you take all your *Wildcat!* nodes down during the backup event, any open database files will be skipped. There is little point backing up the rest of your system if the data files are not backed up.

A few other notes:

- Back up your system before you install new software or update your existing software. If something goes wrong, you'll at least be able to put your system back to the way it was.
- Back up your system before you run programs uploaded by your callers, particularly those people you don't know and trust. An innocent-looking program may, either accidentally or deliberately, damage data or erase files. Be especially suspicious of programs that make vague claims to "improve the efficiency of your BBS" — these programs are often either useless or dangerous.
- Keep a copy of your backup/restore software on a bootable floppy disk with a few of your favorite DOS files and utilities such as FORMAT, FDISK, DEBUG, a text editor, any device drivers your PC needs, and any other diagnostic programs you need to help recover from a hard drive failure. Write-protect the disk to prevent virus infections, then make an extra copy of it, and store it in a safe place.

PKZIP/PKUNZIP

Most files that are distributed electronically are packed into an "archive". This saves disk space and transfer time as the files in the archive are compressed to half their original size, or even smaller. By far the most widely-used archive utility for PCs is PKZIP/PKUNZIP from PKWare.

If you plan to offer options on your BBS such as off-line mail, you will need PKZIP and PKUNZIP to process mail packets. A number of other add-on programs use PKZIP/PKUNZIP as well, and you're bound to find uses for it yourself as well — you can even use it to back up files on your PC.

The latest version of PKZIP/PKUNZIP on the MSI HQ BBS is PKZ204G.EXE. This is a self-extracting archive containing all the program and documentation files you need, plus ordering and registration information. Run PKZ204G.EXE in a subdirectory, then copy the executable files to a directory in your DOS path.

Communication software

Chances are, you make outgoing calls with your modem from time to time, and it's hard to do without a good communications program. Beyond the obvious choices of MSI's own *QmodemPro* series, there are many good shareware and commercial communication programs available.

A good communication program will be easy to use, with a good selection of file transfer protocols, terminal emulations, and configuration options for your modem. A script language is practically a necessity if you want to automate your calls. Good on-line help, manuals, and easy access to technical support should also be on your list of criteria.

Before you buy, check with MSI for information about special discounts on *QmodemPro* for *Wildcat!* Sysops.

Text editor

As your system grows, you'll probably need to edit and modify various batch files and configuration files. While it's possible to use a word proc-

essor for these small editing tasks, this is usually not the fastest or most efficient way to get the job done.

Recent versions of MS-DOS come with a full-screen text editor called "EDIT", and while it's nothing fancy, this may be all you need for simple tasks like batch files. EDIT has comprehensive on-line help, and recognizes a variety of editing and cursor movement commands familiar to users of WordStar and MS-Word.

Another good choice is QEdit, from Semware. This very popular shareware editor is renowned for its speed and its ability to edit many files at the same time. You can find the latest version of QEdit at the MSI HQ BBS. The current version at the time this manual was printed is QEDIT3.ZIP.

File browser

Another "essential" utility is a file browser. This is different from a text editor, because it allows you to view a file without changing it. This is the only way to view binary files, such as program and data files, and it's a workable replacement for the DOS TYPE command. A good file viewer will allow you to switch between ASCII and HEX views, and gives you the option of wrapping long lines of text on the screen.

A favorite among longtime computer users is Vern Buerg's LIST program. It is small and simple, yet very versatile. Like QEdit, this is a shareware program available from the MSI HQ BBS. The current version at the time this book went to press is LIST90H.ZIP

DOORWAY

Doorway is a shareware communication driver from Trimark Engineering that allows you to redirect your computer's input and output from the screen and keyboard to the serial port, and run programs by remote control over a modem. If you want to be able to call your BBS from another PC, and shell to DOS on the BBS machine to execute DOS commands or run programs, Doorway is essential. The latest version of Doorway available at MSI HQ BBS is DOORWAY.ZIP.

We'll talk more about Doors, Doorway, Sysop Drop to DOS and Menu Hooks in Chapter 6, *Customizing*.

Virus Scanner

While many commercial virus-protection programs are available, you should be aware that these programs use memory and can slow down your PC since they are always "on duty" checking for potential infection. Depending on how these programs work, they may require frequent updates as new viruses appear.

A good alternative for those who prefer to prevent viruses by practicing "safe computing" is a command-line driven virus checking utility such as McAfee Associates Viruscan program. This set of programs is distributed electronically, and thus the authors are able to keep up with new viruses more quickly than authors who rely on traditional distribution methods.

The best and safest way to get the latest version of McAfee's Viruscan software is to download it directly from McAfee's BBS, at 408-988-4004. Log in as "GUEST USER", and the BBS will take you directly to the file menu so you can download the latest version. At the time this manual was printed, the most recent release was SCANV114.ZIP.

You can find a more detailed discussion of viruses and computer security in the next section of this chapter.

GIF viewer

If you collect picture files on your BBS, you'll need a way to look at them. A good GIF viewer lets you look at other graphic files as well, for instance Windows BMP files, TIFF, Targa, PCX and JPEG. Two popular shareware GIF viewers are CompuShow and Vpic. The file names at MSI HQ BBS are CSHOWA.ZIP and VPIC60G.ZIP, respectively. Both work best with VGA or Super VGA.

Directory manager

While a directory manager isn't strictly necessary, it can make life simpler if you need to tag, view, move, copy or delete a number of files at the

same time. There's no substitute for knowing and using DOS commands, but a directory manager, when used appropriately, can save you a lot of time.

For starters, try the DOSSHELL program provided with MS-DOS versions 4 and higher. Just one of many commercial alternatives to DOSSHELL is PC Tools from Central Point Software. The number of different shareware, freeware and public domain directory managers approaches infinity, and our best advice is to try several to find one you like.

Security Considerations

Computer security is one of the most hotly-discussed issues around. As a BBS operator, you are wise to concern yourself with security, but you should be aware that much of the information about "hackers" and "viruses" that is passed around is incomplete, inaccurate and greatly sensationalized. A little knowledge and common sense will help you put computer security issues in perspective.

Much of *Wildcat!*'s architecture and design revolves around the issue of creating a secure BBS environment. Although *Wildcat!* is perfectly capable of serving the needs of hobbyist telecommunications enthusiasts, it was designed with a business environment in mind, an environment in which the integrity of information is of paramount importance. *Wildcat!*'s security is second to none.

Since *Wildcat!*'s first release in 1986, the security provisions have never been overcome as the result of a software deficiency or compromise of the program code. The file database structure allows sensitive non-BBS data to reside on the same hard disk as the *Wildcat!* system, since ONLY the specifically authorized database files are ever allowed access. The system operator has full control of the security setup from the number of logon checks performed to file and message access to the time remaining prior to logoff.

Should you have any concerns or discover what you believe are problems with a security issue, please contact one of MSI's management staff for an immediate response.

Viruses

The two things most people think about when you mention computer security are hackers and viruses.

Viruses are programs that "infect" other programs, and spread themselves from disk to disk. Many viruses are designed to cause problems of one kind or another on your system, whether it's a peculiar message on your screen, or the destruction of data on your hard and floppy drives.

There are two main types of viruses, and they are transmitted in different ways. Both kinds of viruses will try to infect as many disks and programs as they can.

The first kind of virus infects executable programs, and spreads to other programs when you run a program that is infected. Unless you run an infected program, the virus has no way to spread.

The second type of virus travels on hard and floppy disks, in a special area of the disk called the "boot sector" — hence these are called boot sector viruses. The boot sector contains instructions that are executed by your computer when you reset or "reboot" your PC. If a disk is "bootable", the instructions tell your computer to load the system files for your operating system. If a disk is non-bootable, it displays a message on your screen asking you to insert a system disk.

Boot sector viruses spread from computer to computer from infected floppy disks. Boot sector viruses spread to your hard drive when you inadvertently leave an infected floppy disk in your A: drive and reboot your computer.

The **only** way to infect your computer with a virus is to allow it to come into direct contact with an infected disk or program. A virus cannot travel all by itself over a modem connection, nor can you catch a virus simply by logging onto a BBS or on-line service.

You *cannot* catch a virus from a mail packet, a text or data file, an archive (unless you extract a virus-infected program and run it), or any other non-executable file. To infect your computer, you must run an infected program or boot your PC from an infected floppy disk.

The simplest way to protect yourself from virus infection is to practice "Safe Computing" — if you don't trade software or floppy disks with other people, you will greatly reduce your risk of catching a virus. Make a point of not allowing anyone else with physical access to your machine or network to bring in disks or programs, and don't allow disks to leave your premises — they could easily be infected, even inadvertently, and brought back in to infect your PC.

If you feel there is still a risk of virus infection with all these precautions in place, invest in a good virus scanning utility and run it on any new programs and disks before you use them in your PC. Virus scanning programs are not perfect — they may trigger false alarms if by some coincidence a small fragment of code in a non-infected program happens to match a portion of code in a known virus. Programs that modify their own executable files can also trigger virus scanners with a false alarm.

If you feel for any reason your computer may have become infected with a virus, call a qualified computer professional for help.

Hackers

Hackers are simply people who enjoy playing with computers, mainly for the challenge and enjoyment of learning all there is to know about a particular machine, operating system, or application.

Like most pleasurable pursuits, however, hacking can be taken to extremes. Whereas most people respect locked doors and "no trespassing" signs, there are some few who do not. Just like the real world, the electronic community has its share of vandals and burglars, and these are the kind of people who have created the sensationalized image of the predatory hacker.

The fact is, breaking into computer systems is just as much a criminal activity as breaking into houses. You can protect your BBS from break-ins in the same way as you'd protect yourself and your property — by not leaving your doors unlocked with valuables lying around in plain sight, or letting junk pile up making it obvious you're not home.

Likewise, you should take reasonable care with passwords, check your system configuration regularly to ensure that people don't have access to parts of the BBS they shouldn't see, and give the system a professional, well-cared-for look. If you run third-party utilities with *Wildcat!*, including *wcCODE* applications, be sure these programs come from a reliable, trustworthy source and do not contain any "back doors" or hidden functions that could compromise the security of your BBS. Even an accomplished and determined hacker poses no real threat to *Wildcat!*, so long as you take these basic precautions.

Some people, although they are not hackers in the true sense, may use threats or intimidation to convince you that they know some way to compromise your system security. The more you know about your system, the better prepared you are to recognize these people for what they are and, consequently, the easier it is to protect yourself from them.

Once again, feel free to call MSI if you have any concerns about the security of *Wildcat!*.

Handling problem callers

It's reasonable to set a few "ground rules" for your callers — for instance real names only, no foul language, and no uploading of pirated commercial programs or other inappropriate files. It's also fair to expect that a small minority of your callers will not co-operate.

People, particularly those who are new to on-line communication, tend to forget that the written word does a poor job of conveying tone of voice, body language, humor and particularly irony. There are plenty of traditions of on-line communication both major and trivial which, when flouted by a new user, are apt to result in responses from other callers ranging from helpful to angry.

Of a more serious nature are callers whose abuse of your system seems deliberate rather than unknowing. You can screen out a lot of potential abusers by anticipating the most common situations, and letting *Wildcat!* look after screening them out.

BADNAMES.LST

This is a text file list of user names you do *not* want to allow on your BBS. This file goes in your WILDCAT directory, and you can create and modify it with a text editor.

When a new user logs on, *Wildcat!* checks BADNAMES.LST, and disconnects any user whose first or last names match names in the list. The search is case-insensitive: lower case and capital letters are treated the same way. Wildcard characters ? and * are supported, to thwart callers who use variant spellings of bad words. Be careful with this feature — a "*" character on a line by itself would prevent *any* name from being used.

You can replace *Wildcat!'s* built-in message,

```
Unacceptable name. Auto-disconnect in progress.
```

with a display file called BADNAMES.BBS.

Suppose the first few lines of BADNAMES.LST contained the following entries:

```
president clinton
mrs.
doe
code
cracker
bad
dude
john
cuss*
```

Let's explore the benefits and potential shortcomings of this sample listing.

Good — Any user who tries to log on as "President Clinton", "Code Cracker" or "Bad Dude" will be immediately logged off the system, and *Wildcat!* will record the failed logon to the ACTIVITY.### file.

Bad — Users with the names "John Doe" or "Mrs. Abrams" would also be logged off. This includes users whose *real* name happens to be "John Doe", and worse, any user whose *first or last* name is "John".

If you elected in *MAKEWILD* to allow duplicate user names on your BBS, you can use BADNAMES.LST to prevent certain names from being re-used on your system and causing confusion for your callers. It's a good idea, for instance, to put your own Sysop name in BADNAMES.LST, along with names of key staff members or co-Sysops. If these names are frequently misspelled, it's a good idea to put the misspelled version in the file as well. For instance, a BADNAMES.LST containing the names

```
RICK HEMING
RICK HEMMING
JIM HARRER
JIM HARRIER
```

would not prevent the real Rick Heming and Jim Harrer from logging on since their names are already in *Wildcat!'s* user file, but any potential impostors will be thwarted if they try to log on.

BADALIAS.LST

This file works in much the same way as BADNAMES.LST, but in this case it prevents users from selecting certain words for their alias names. *Wildcat!* will not allow callers to select an alias name that is the same as the real name of any user on the BBS, so it's not necessary to put your own name in this file.

BADPHONE.LST

If you collect phone numbers from your callers as part of the newuser questionnaire, it's a good idea to screen out obviously bogus numbers by listing them in BADPHONE.LST.

Some phone numbers to exclude are your local police and fire departments, directory assistance, radio station contest lines, so-called "900" numbers, your own BBS phone numbers, college and university mainframe numbers, and repetitive strings of digits such as 111-111-1111.

You can use the Wildcard characters ? and * to screen out entire groups of phone numbers, as well as specific entries. Review the following list for examples.

```
???-555-1212
805-873-2400
111-111-*
222-222-*
900-*
???-976-*
```

Caller ID

Wildcat! supports automatic number identification (ANI) services, also known as Caller ID, providing the following conditions are met:

- Your phone company offers Caller ID service, and you subscribe to it. Caller ID is not available in all areas.
- Your modem explicitly supports Caller ID, and sends the originating phone number as a result code between the first and second rings.
- You have filled in the Modem Caller ID string in *MAKEWILD* or *wcMODEM* reported by your modem when it identifies a caller's phone number.

When a call comes in, *Wildcat!* will capture the originating phone number in two places. First, it records it in the activity log for the current caller. Then it places the originating phone number in the @CALLID@ macro.

If the caller fails a password check and Caller ID is enabled, the originating phone number along with the attempted passwords is recorded in the activity log.

The *Wildcat!* command line switch /C logs more detailed caller ID information to your activity log. This information may be helpful in troubleshooting modem caller ID reporting problems.

One of the ways you can make use of this information is with the activity log, where you can compare the Caller ID information with the phone number the caller entered in his user record. If the two don't match, or if the caller has purposely blocked transmission of his phone number, this could alert you that the caller may not want his true identity known.

Callback verifiers

If you are bothered by callers who consistently misuse the system, enter false information, or logon with many different names, you may want to consider an automatic callback verification system.

A callback verifier extracts the new user's phone number from their user record, and calls them back at that number. If the caller successfully answers the returned call with his modem and enters his password correctly, the callback verifier can automatically upgrade the new user's security.

You can find a variety of caller verification utilities in the *Wildcat! 4* Utilities section of MSI's HQ BBS.

Locking out a caller

You can lock out callers who persist in misusing your BBS, preventing them from logging on again until you change their locked-out status. There are two ways to lock out a caller.

On-line

If the caller is currently logged on to the BBS, you can disconnect and lock him out by pressing [ALT] [0]. This command displays ALT0.BBS to the caller and locks him out by setting a flag in his user record.

When a locked-out caller tries to log on again, *Wildcat!* will display a message like this, before hanging up:

```
WILDCAT! Copyright (c) 87,95 Mustang Software, Inc.  All Rights Reserved.
Registration Number: 86-0001.  v4.10 MP(MultiLine Platinum).  Node: 176.


            You have connected to node 176 on the MSI HQ BBS
            Connection is at 0, modem is USR v.everything 28K

        Please make use of your real first/last name on this BBS

**        Registered users must return their REGISTRATION CARDS        **
**  in order to ensure that their access is maintained on this system  **

          ------------------------------------------------------

Looking up your name. Please wait...

Welcome GWEN BARNES from Mustang Software, Inc..
You were previously Locked-Out and are denied access.
(Click)

Press [ENTER] to continue?


 GWEN BARNES          176 5    Local  STAFF       |Key|Prn|Pag|Bel|Cap|
```

Off-line

You can also lock out a caller by manually changing the "locked out" setting in his user record. Go to the Sysop menu, select Users, and Jump to the record of the caller whose status you want to change. The "locked out" information is on page 2 of the user record. To get there, press E for "Extra Info". The screen should look something like this:

```
GWEN BARNES from Mustang Software, Inc.

[ 1] Computer Type    : Bambleweeny 57          [17] Quote reply     : Yes
[ 2] Alias            :                         [18] Lines per page  : 23
[ 3] Title            : Techwriter              [19] Msgs written    : 6194
[ 4] Sex              : Not disclosed           [20] Upload          : 65531
[ 5] New files        : 03/13/95 1:04p          [21] Downloads       : 129
[ 6] Total upld Kb    : 12428                   [22] Time left       : 831
[ 7] Total dnld Kb    : 57913                   [23] Daily DL        : 0
[ 8] Minutes logged   : 59229                   [24] Daily DK        : 0
[ 9] Novell name      :                         [25] Last conference: 80
[10] Secondary # 1    : UUCP                    [26] Locked out      : No
[11] Secondary # 2    : CHAT                    [27] Never delete    : No
[12] Secondary # 3    : BETAQMD                 [28] Logon siren on  : No
[13] Secondary # 4    :                         [29] Hide private    : No
[14] Secondary # 5    :                         [30] Hide deleted    : Yes
[15] Read mail mode   : Clear screen            [31] User capture on: No
[16] Default language: Default                  [32] Sorted lists    : No

Edit [1..32], [F]ind Alias, [S]earch Alias, [H]elp? [  ]

 GWEN BARNES          176 831  Local  STAFF      |Key|Prn|Pag|Bel|Cap|
```

Enter the item number you want to change, in this case "26", and answer "Yes". To restore a caller's access, change "Locked-out" back to "No".

Conference Lockout

You can also lock a caller out of a conference, without removing his access from the BBS as a whole. To lock out a caller, look up his user record, and type C for "Conference". Enter the conference number from which you want to exclude the caller, then change "Locked Out" from No to Yes. You can restore a caller's access to a conference in the same way.

When a caller is locked out of a conference, he will be unable to join the conference, read or reply to messages, or access files that are available only from that conference.

System maintenance

Regardless of the kind of BBS you plan to operate, there are some routine tasks every BBS operator has to face. Much of *Wildcat!'s* activities can be automated, but the people who call your BBS still appreciate the "personal touch" you can provide by spending a few minutes every day answering mail and comments, and helping callers who are having difficulties.

Node Zero and local logons

All versions of *Wildcat!*, including the Single Line version, have a special local-only node for Sysop logons and local maintenance. This is a handy way to log on to your BBS to answer mail, move files, or do whatever else you need to do on-line without interrupting service for your incoming callers.

The hardware and software requirements to run node 0 on a single line BBS exactly are the same as for running a multi-line BBS with the exception that node 0 has no support for a serial connection of any kind.

You can find out more about multi-line setup in Chapter 7, *Multi-line setup* but we will cover the main points briefly here.

- Set the "Network Type" in *MAKEWILD* General Information to either "Novell" (for Novell NetWare only) or "DOS Share" (for other networks including LANtastic, Banyan Vines, etc., and multi-tasking environments such as DESQview).
- Create a LOCALCAT.BAT file like this:

```
set WCNODEID=0
set WCPORTID=0
CD \WILDCAT
WILDCAT /LOCAL
```

- If you're running DESQview, Windows or OS/2, open a DOS window. On a Local Area Network, log onto an unused workstation and change to the *Wildcat!* drive and directory.

- Type

```
LOCALCAT ENTER
```

and enter your name and password at the prompts. When you finish your local logon, type G to say "good-bye" and logoff, then *Wildcat!* will exit to DOS automatically.

Reviewing system activity

As your callers log on, read mail and transfer files, *Wildcat!* records their activities in a number of ways. A caller's user record is updated as he reads and answers messages, uploads and downloads files, and executes doors and menu hooks.

At the same time, *Wildcat!* records the caller's activity in the Activity Log, and updates the system statistics on the idle screen. Critical system errors are recorded in ERROR.LOG, and this is one file you should make a habit of viewing regularly.

Viewing activity logs

Activity log files are plain ASCII text files that you can view on-line from the Sysop menu, or from DOS with your favorite text browser. The files are located in your *Wildcat!* home directory, and are named ACTIVITY.###, where "###" is the one to three-digit node number.

To view the activity log on-line, go to the Sysop menu and type A for "View Activity Log", then enter the node number of the activity log to view. *Wildcat!* displays the file with the most recent entry first.

```
      * Ending Memory: 214160
12:46 Signed off NORMALLY.  Time Logged: 37 with 935 minutes remaining.
      * 1 line message left in 0 - Private E-Mail ONLY
      * Message attachment RENUM.ZIP uploaded
      * Ansi viewed files in 0 areas
      * Listed new personal mail at login
      * Starting memory: 214160
      * Caller #: 1680579
      * Voice  #: 805-832-6365 Data #: 805-873-2400
      * 8 Databits:YES, Detected:ANSI, MNP:NO, CONF:0, Time Limit:972
12:09 PAT POWERS [STAFF] - Mustang Software, Inc. on locally, Tue, 03/14/95
-------------------------------------------------------------------------------
      * Ending Memory: 214160
09:55 Signed off NORMALLY.  Time Logged: 6 with 972 minutes remaining.
      * File [DRP-MG3.ZIP] downloaded from (Area 58) locally
      * File [DRP-MW4.ZIP] downloaded from (Area 58) locally
      * File [BB3.ZIP] downloaded from (Area 58) locally
      * File [DD2.ZIP] downloaded from (Area 58) locally
      * File [GIBBS.ZIP] downloaded from (Area 58) locally
      * File [PW1.ZIP] downloaded from (Area 58) locally
      * File [RBBSV3N1.DRP] downloaded from (Area 58) locally
      * Non-Sorted Search
[C]ontinue, [N]onStop, [S]top? [C]
 GWEN BARNES          176 830  Local  STAFF        |Key|Prn|Pag|Bel|Cap|
```

Keep an eye out for such things as logon failures and illegal logon attempts. If one or more callers suddenly start forgetting their passwords, this could be a sign that someone else is trying to gain access to your system by guessing your callers' passwords.

Various kinds of errors are recorded in the activity log as well — mostly non-critical errors such as download failures or missing files. Critical system errors are noted briefly in the activity log, with instructions to view the ERROR.LOG file for more information on the problem.

Deleting the activity log

It's a good idea to delete or archive your activity log files from time to time — otherwise they can grow quite large. You can delete activity log files on-line from the Sysop menu, or from DOS.

Since the logs contain a wealth of information about system usage, typical caller profiles, popular bulletins, files and message areas, you may want to save this information in a meaningful format before you delete your ac-

tivity logs. One of the best ways to handle activity logs is to process them with the optional *wcPRO* utility package, which creates a file you can display as a bulletin showing your system's statistics. You can request more information about *wcPRO* by calling Mustang Software Inc.

Scrollback

Wildcat! has a built-in scrollback buffer, allowing you to view the last few screens of caller activity. You can only view the scrollback from the local terminal — if you are logged on remotely, use the scrollback buffer in your communication software.

To view the scrollback buffer, press your [↑] key. Notice how the display changes — a scroll bar will appear on the right side of the local screen. Use your arrow keys, [PG UP] and [PG DN] to move around in the window. To return to a normal view, press [ESC].

Caller activity is not affected while you view the scrollback — in fact callers will not be aware of your viewing at all, and can continue entering commands.

Capture file

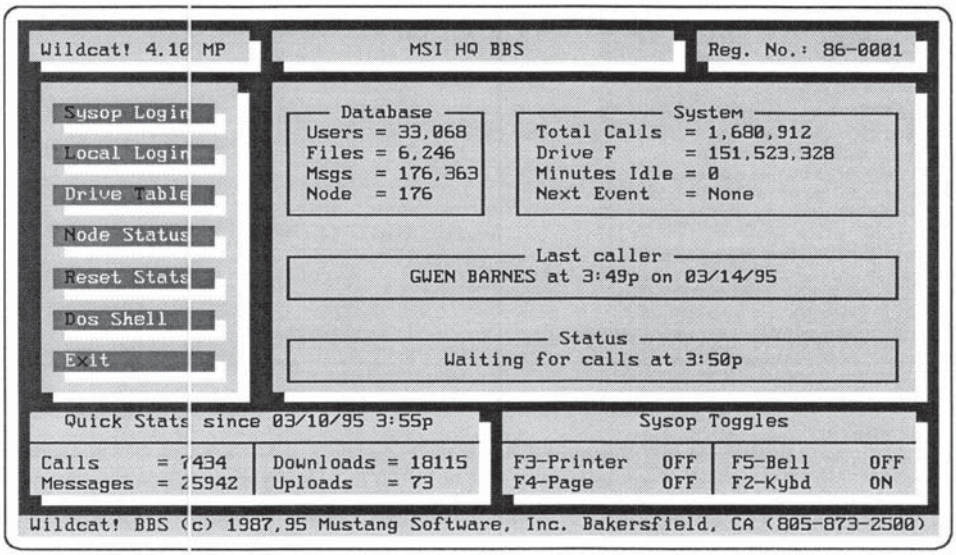
You can create a more permanent record of caller activity by capturing the scrollback data to disk. To turn on the capture file, type [ALT] [C]. Type [ALT] [C] again to turn the capture file off. To turn on the capture file every time a particular user logs on, edit the caller's user record and turn on capture from the Extra Info screen, line 31.

Note that the captured data includes whatever graphical information is sent to the serial port, including ANSI and RIPscrip commands. The only time captured data is not written to the capture file is when the caller is in the message editor — the large amount of ANSI codes required makes it impractical to capture this information.

Capture files are saved as CAPTURE.###, with ### as the one to three digit node number.

System statistics

Wildcat! displays system statistics such as number of calls, users, messages and files in various places.



The idle screen shows both overall statistics and quick statistics. To reset the quick statistics and save a copy in the activity log, press [ALT] [R].

```
[D]....................Doors          [N]...............Newsletter
[G].........Goodbye & Logoff          [H]...............Help level
[?]............Command help           [J]..........Join conference
[X]...............Dos hook 1          [Z]...............Dos hook 2
[W]............Who is online          [L]...............Live Chat
[=].........Page Online User

Conf: "[1] - General Public Messages", time on 0, with 999 remaining.

Main Menu: [M F 1 C B P I Q V Y S U D N G H ? J X Z W L =] ? S

WILDCAT! BBS Version 4.10 MP (MultiLine Platinum) compiled on 2/22/95.

WILDCAT! registration ID  : 86-0001
This BBS started on       : 08/01/86
Total number of calls     : 15
Number of active users    : 1
Number of available files : 10,150
Number of active messages : 23
Current time is           : 15:21 on Tuesday, March 14, 1995
Your conference sysop is  :


Press [ENTER] to continue?
 GWEN BARNES        176 999  Local  SYSOP      |Key|Prn|Pag|Bel|Cap|
```

The main menu command "System Statistics" shows some of the system information you entered in *MAKEWILD* such as the Sysop's name, your *Wildcat!* registration number and the date you started your BBS, along with the number of calls, users, and files.

You can replace this internally-generated information with a display file called WCPRO.BBS. This file is created by the optional utility program *wcPRO* after it extracts information from your activity log files. You can find out more about *wcPRO* and other add-ons for *Wildcat!* in the Appendix at the end of this book.

Here is a sample of some of the information *wcPRO* displays:

```
                          ■ Average User Profile ■
 Calls                  =          49 Downloads                  =          40
 Hours logged           =           3 Age                        =          35
 Minutes per call       =           4 Months since 1st call      =           5
 Uploads                =          22 Subscription balance       =           0
 Netmail balance        =           0

 Sex: Not disclosed = (99%)   Help   Novice  = (98%)   Hot keys:
      Male          = (1%)    level: Regular = (1%)       Yes = (45%)
      Female        = (0%)           Expert  = (1%)       No  = (55%)

 Editor:                      Menus: ASCII       = (2%)   Packet type:
     No default  = (92%)              ANSI       = (24%)   Text = (0%)
     Line editor = (0%)               RIPScrip   = (0%)    Qwk  = (100%)
     Full screen = (8%)               Auto detect = (74%)

 File    Single = (2%)    Message display:    Sorted lists:
 Display Double = (98%)      Scroll = (99%)   Sorted     = (2%)
         Full   = (1%)       Clear  = (1%)    Non-sorted = (98%)
         Lister = (0%)       Header = (0%)

[C]ontinue, [N]onStop, [P]rev, [S]top? [C]
 GWEN BARNES          176 998  Local  SYSOP      |Key|Prn|Pag|Bel|Cap|
```

Status of Databases

The Sysop menu command "Status of Databases" offers more technical information on the status of your system. Some of the information on these two screens warrants further discussion.

```
-------------------------[ Overall System Information ]-------------------------

Bulletin board name: MSI HQ BBS                                Date: 03/14/95
    System operator: MSI SYSOP                                 Time: 3:55p
 Date of first call: 08-01-86                                  Node: 176

Overall System          Quick Stats Since      Local Sysop
Information             03/10/95 3:55p         Toggles
----------------------  --------------------   ---------------
Users: 33,068           Calls Recvd: 7,451     Local Kybd: On
Files: 6,246            Msgs left  : 25,944    Printer   : Off
Confs: 1375             Files Dnld : 18,129    Sysop Page: Off
Msgs : 176,365          Files Upld : 73        Page Bell : Off

Available Disk Space
--------------------
C:58,720,256   D:CD-ROM       F:153,501,696  G:339,869,696  H:272,105,472
I:149,102,592  J:27,570,176   K:607,879,168  N:284,753,920  U:607,879,168
X:272,105,472  Y:149,102,592  Z:149,102,592

Press [ENTER] to continue?


 GWEN BARNES          176 828  Local  STAFF      |Key|Prn|Pag|Bel|Cap|
```

Local Sysop toggles

This is the same information you see on the status line at the bottom of your screen, and shows the current state of the local keyboard, printer, Sysop page and bell.

Available Disk Space

This field lists all the hard drives on your system, including network drives, and the amount of free space on each one. You should monitor this infor-

mation regularly, especially on drives *Wildcat!* uses for its databases, and drives where you receive new uploads.

```
-----------------------[ Database Status Information ]-----------------------
Current Conference: MSI Sales msgs.

Database      Active Records      Total Records      Deleted Records
--------      --------------      -------------      ---------------
FILES                    993            1,341                  348
USERS                 33,068           33,096                   28
MESSAGES               2858             2866                    8

--------------------------[  Key Status Information ]--------------------------

Key Name          Number      Key Name          Number
-----------       ------      ------------      ------
UserNameKey   =   33,068      FileAreaKey   =      533
UserSecKey    =   33,068      FileNameKey   =      533
UserExpKey    =   33,068      FileDateKey   =      533
UserAliasKey  =        7      FileUpldKey   =      533
UserIdKey     =   33,068

WILDCAT! Version: 4.10 MP10 (MultiLine Platinum).  Registration Number: 86-0001

Press [ENTER] to continue?

 GWEN BARNES          176 828  Local  STAFF       |Key|Prn|Pag|Bel|Cap|
```

Database status information

As you will remember from earlier chapters, *Wildcat!* stores information about users, messages and files in a database format. A database is a file containing individual records, one for each user, message, or file — like an electronic shoe box full of index cards.

The database status screen shows how many records each database contains. Active records are ones that contain current information, while deleted records are available for *Wildcat!* to re-use the next time it makes a new entry in one of the databases. The total number of records should equal the number of active records plus the number of deleted records.

Since the file and user databases are each kept in a single data file, the information about these two items will be consistent regardless of what

conference you have joined. The message information, on the other hand, is kept in a separate file for each conference, so these figures reflect only the totals for the *current* message conference.

Key status information

Each database has a set of index keys which *Wildcat!* uses to find records within the databases. Each database has different kinds of keys, depending on what kind of information is requested most frequently. By using index keys, *Wildcat!* can find and retrieve records very rapidly.

The reason you want to look at this screen from time to time is to check that each database contains the correct number of keys for the number of records it contains.

The numbers for the first two or three keys in each database should match each other. For instance, FileNameKey, FileAreaKey and FileDateKey should all report the same number, because each file has to have a name, a file area and a date for *Wildcat!* to find it properly. Likewise, *Wildcat!* expects each user to have a name (UserNameKey) and a security profile (UserSecKey).

If discrepancies build up in the number of these critical keys, the database has probably become corrupted, and needs to be repaired. The reason database files become corrupted varies — an improperly-written third-party utility, for instance, a disk error or power fluctuation while *Wildcat!* was updating a file, and so on.

Fortunately, most database errors can be repaired quite easily with *wcREPAIR*. This program rebuilds and repairs your database files, and restores the proper number of keys to each database record. We'll talk more about that program a little later in this section.

User database maintenance

You have complete access to all user record information from the Sysop menu command "User editor". *Wildcat!* displays one user record at a time, and allows you to make changes to any field. Each user record has

several pages of information for general, extra, conference and mail door settings.

```
Record number  : 34564        Match : NONE                User ID : 73585

[ 1] Name      : IVO ANDRIC                      [18] Zip code  :
[ 2] From      : Yugoslavia                      [19] SecLevel  : WILDCAT!
[ 3] Phone [V] :                                 [20] ExpDate   : /  /
[ 4] Phone [D] :                                 [21] User since: 10/06/94
[ 5] Phone [F] :                        Age: ??  [22] D.O.B.    : /  /
[ 6] Last call : 10/03/94 12:01p                 [23] Memo date : /  /
[ 7] Comment 1 :                                 [24] # Calls   : 0
[ 8] Comment 2 :                                 [25] Page avail: No
[ 9] Comment 3 :                                 [26] Display   : Auto detect
[10] Comment 4 :                                 [27] E-prompt  : Yes
[11] Comment 5 :                                 [28] Hot keys  : No
[12] Company   :                                 [29] File disp : Double line
[13] Address 1 :                                 [30] Editor    : No default
[14] Address 2 :                                 [31] Protocol  : Zmodem
[15] City      :                                 [32] N-mail bal: $     .00
[16] State     :                                 [33] Acct bal  : $     .00
[17] Country   :                                 [34] Help level: NOVICE

Edit [1..34], [F]ind, [N]ext, [M]atch, [J]ump, [D]elete, [E]xtra, [X] New Pwrd,
[U]ser Mail,  [C]onf, [P]rev, [W]rite, [H]elp, [S]earch, [A]dd,   [Q]uit?

 GWEN BARNES         176 988  Local  STAFF       |Key|Prn|Pag|Bel|Cap|
```

User records are always arranged in alphabetical order, by last name. You can easily view all records belonging to a specific security profile or expiration date by "Matching" on one of those two items.

```
[11] Comment 5 :                                  [28] Hot keys  : No
[12] Company   :                                  [29] File disp : Double line
[13] Address 1 :                                  [30] Editor    : No default
[14] Address 2 :                                  [31] Protocol  : Zmodem
[15] City      :                                  [32] N-mail bal: $     .00
[16] State     :                                  [33] Acct bal  : $     .00
[17] Country   :                                  [34] Help level: NOVICE

Edit [1..34], [F]ind, [N]ext, [M]atch, [J]ump, [D]elete, [E]xtra, [X] New Pwrd,
[U]ser Mail,  [C]onf, [P]rev, [W]rite, [H]elp, [S]earch, [A]dd,   [Q]uit? M

Match on [S]ecurity level or [E]xp date? [S]

Available security levels:
[   1] - NEWUSER    [   2] - WILDCAT!   [   3] - QM-DOS
[   4] - QM-WIN     [   5] - WC-TD      [   6] - QM-TD
[   7] - OLX        [   8] - MULTIPLE   [   9] - BETA-WC-S
[  10] - BETA-WC-M  [  11] - BETA-WC-P  [  12] - BETA-WC-MP
[  13] - BETA-UUCP  [  14] - BETA-QM-D  [  15] - BETA-QM-W
[  16] - ECHO-OP    [  17] - STAFF      [  18] - BUNDLE
[  19] - HOLD-HERE  [  20] - ALPHA-WC   [  21] - ALL-BETA
[  22] - PREBETA-WC [  23] - ECHOAPP    [  24] - NOCHAT

Match on which security level? [  ]
 GWEN BARNES          176 986  Local  STAFF       |Key|Prn|Pag|Bel|Cap|
```

Edit Commands

You can change the information in any user record field by typing the number of the item to change, then typing the new information. Press ENTER to save the changes.

You can find a complete list of user record fields in Chapter 8, *Reference*.

Adding users

Press A to **Add** a user to the database. *Wildcat!* will prompt you for the user's name, the security profile to assign, the caller's location and password. It is then up to you to include additional information on the phone numbers, address, expiration date, and so on.

Finding a user

Depending on the results you want, there are several ways to locate users, either individually or in groups.

Match

The **Match** command will find all user records belonging to a particular security profile, or with a specific expiration date. For instance, you can match on security profile to find all your new users, so you can review their demographic information, then upgrade their security.

Jump

You can jump quickly to any location in the database by typing one or more letters of the region of the alphabet you want to find.

Search

The **Search** command works in much the same way as the Jump command. You can search for users whose names match the partial or full name you type here.

```
[ 2] From       : Mustang Software, Inc.          [19] SecLevel  : STAFF
[ 3] Phone [V] : 805-873-9839                     [20] ExpDate   : /  /
[ 4] Phone [D] : 805-873-9724                     [21] User since: 01/05/94
[ 5] Phone [F] : 805-873-2599          Age: 35    [22] D.O.B.    : 05/19/59
[ 6] Last call : 06/14/94 10:14a                  [23] Memo date : /  /
[ 7] Comment 1 :                                  [24] # Calls   : 569
[ 8] Comment 2 : 90-2066                          [25] Page avail: Yes
[ 9] Comment 3 :                                  [26] Display   : Auto detect
[10] Comment 4 :                                  [27] E-prompt  : Yes
[11] Comment 5 :                                  [28] Hot keys  : No
[12] Company    : Mustang Software Inc            [29] File disp : Double line
[13] Address 1 : 6200 Lake Ming Road              [30] Editor    : No default
[14] Address 2 :                                  [31] Protocol  : Zmodem
[15] City       : Bakersfield                     [32] N-mail bal: $     .00
[16] State      : CA                              [33] Acct bal  : $     .00
[17] Country    :                                 [34] Help level: Novice

Edit [1..34], [F]ind, [N]ext, [M]atch, [J]ump, [D]elete, [E]xtra, [X] New Pwrd,
[U]ser Mail,  [C]onf, [P]rev, [W]rite, [H]elp, [S]earch, [A]dd,   [Q]uit? S
Search string? [john doe                  ]
Searching for "john doe", please wait...

Is JOHN DOE from DALLAS TEXAS the user you want? [Y/n]? [N]
Is JOHN DOE from Bakersfield, CA the user you want? [Y/n]? [Y]
 GWEN BARNES          176 868  Local  STAFF       |Key|Prn|Pag|Bel|Cap|m174k,s12k
```

Find

To **Find** a specific user, type the user's name exactly as it appears in the user database. If you allow duplicate user names and more than one user with that name exists, *Wildcat!* will show you all the matching user names so you can choose the one you want to edit.

```
[ 6] Last call : 06/14/94 2:29p                    [23] Memo date : /  /
[ 7] Comment 1 :                                   [24] # Calls   : 0
[ 8] Comment 2 :                                   [25] Page avail: No
[ 9] Comment 3 :                                   [26] Display   : No color
[10] Comment 4 :                                   [27] E-prompt  : Yes
[11] Comment 5 :                                   [28] Hot keys  : No
[12] Company   :                                   [29] File disp : Double line
[13] Address 1 :                                   [30] Editor    : No default
[14] Address 2 :                                   [31] Protocol  : No default
[15] City      :                                   [32] N-mail bal: $     .00
[16] State     :                                   [33] Acct bal  : $     .00
[17] Country   :                                   [34] Help level: Novice

Edit [1..34], [F]ind, [N]ext, [M]atch, [J]ump, [D]elete, [E]xtra, [X] New Pwrd,
[U]ser Mail,  [C]onf, [P]rev, [W]rite, [H]elp, [S]earch, [A]dd,   [Q]uit? F
Find which user? [john doe                 ]

Users matching "JOHN DOE"

     Name                          User ID     From
[ 1] JOHN DOE                      31355       DALLAS TEXAS
[ 2] JOHN DOE                      57337       Bakersfield, CA

Select [1-2] or press ENTER to abort? [  ]
 GWEN BARNES          176 868  Local  STAFF      |Key|Prn|Pag|Bel|Cap|m174k,s11k
```

Deleting a user

You can delete a user permanently from the user file by using the **Delete** command. Be careful! You *cannot* undelete a user record once you have deleted it.

Relational links to other databases

You can **Write** a message to the user whose record you're currently looking at, without having to leave the user database screen. Press W to enter

a message. When you've finished with the message and saved it, you will return to the user edit screen.

Creating default user settings

You can create a special user named DEFAULT to automatically assign your choice of user settings, conference selections and other preferences to new users.

As an example, if you want your new users to have hotkeys on, full screen message editor with quoting on, Zmodem protocol, and conferences 0, 1, 4 and 9 selected, create a user named "DEFAULT" and assign those settings to its user record.

This is an easy way to ensure new callers can find any mail waiting for them, and help those who may not have enough experience using BBSs to make selections such as file transfer protocol on their own.

Callers can of course change any of their preferences later on from the "Your Settings" menu selection.

Why can't I see callers' passwords on the screen?

Passwords are not displayed on the user edit screen. To display or change a password, press X at the prompt at the bottom of the screen. You must have Master Sysop status enabled in your security profile to view unencoded passwords, or to delete and change encoded passwords. Encoded passwords are never shown on screen.

Message database maintenance

You can do most of the day-to-day maintenance of your message files while you're logged on to the BBS. For instance, you can edit or delete a message, copy or move a message to another conference, and look up information in your user and file databases directly from the command prompt at the end of each message.

Message Sysop commands

People with Sysop, Master Sysop or Conference Sysop message access can see an additional "Sysop" command on their message reading prompts.

From this command, you can pop up another menu that allows you to move or copy a message to another conference area, look up the user record for the sender and recipient of the current message, or jump directly to the file database.

```
To      : IVO ANDRIC                                Date      : 10/06/94 1:01p
Subject : Welcome!                                  Reference : NONE
Read    : NO  (REPLIES)                             Private   : YES
Conf    : 0 - Private E-Mail ONLY

Welcome to Mustang Software, Inc. BBS, Ivo. And congratulations on that
Nobel Prize -- great work!

Cheers
Gwen
MSI

Read mode : (SELECTED) (27384-)
Msg Read [5900 - 27387], [E]dit, [F]orward, [H]elp, [K]ill, [N]onstop,
[W]rite, [P]rint, [Q]uit, [R]eply, [S]ysop, [T]hread, [ENTER = prev]? s

[P]ublic/Private toggle
[M]ove to conference
[C]opy to conference
[F]rom user edit
[T]o user edit
[A]ccess file database

Sysop command, [H]elp, or [ENTER] to Quit? [ ]
 GWEN BARNES          176 985  Local  STAFF        |Key|Prn|Pag|Bel|Cap|
```

The Message Sysop menu for deleted messages looks a bit different:

```
From    : GWEN BARNES (TechWriter)              Number    : 27384 of 27387 (D)
To      : IVO ANDRIC                            Date      : 10/06/94 1:01p
Subject : Welcome!                              Reference : NONE
Read    : NO  (REPLIES)                         Private   : YES
Conf    : 0 - Private E-Mail ONLY

Welcome to Mustang Software, Inc. BBS, Ivo. And congratulations on that
Nobel Prize -- great work!

Cheers
Gwen
MSI

Read mode : (27384+)
Msg Read [5900 - 27387], [E]dit, [F]orward, [H]elp, [N]onstop,
[W]rite, [P]rint, [Q]uit, [R]eply, [S]ysop, [T]hread, [ENTER = next]? s

[U]ndelete
[F]rom user edit
[T]o user edit
[A]ccess file database

Sysop command, [H]elp, or [ENTER] to Quit? [ ]

 GWEN BARNES          176 983  Local  STAFF       |Key|Prn|Pag|Bel|Cap|
```

Since the message is marked "deleted", there are fewer options, one of which is "undelete". The full set of Sysop message prompts will return when you undelete a killed message.

Note that you will only be able to see deleted messages if the "Hide Deleted" field in your own user record is set to "No".

wcPACK

Wildcat!'s message files require only minimal maintenance about once a week or so, to purge old and deleted mail from the message files and keep them from growing too large.

The program *wcPACK* comes in two versions: a standard version that uses only the lower 640k of memory called WCPACK.EXE, and a extended version WCPACKX.EXE that is able to load as much of the user database into memory as possible for faster operation.

wcPACK is designed to help you manage your message files. You can run this program from the DOS prompt, or from a batch file during a system event.

Special considerations for multi-line operation

wcPACK can be run with other nodes up for most operations, provided that it has its own unique Node ID. You can also run it when nodes are down or in maintenance mode. However, since Conference 0 is used for system-generated messages as well as caller messages, *wcPACK* will not pack confernce 0 unless all nodes are down. Also, you cannot renumber messages unless all nodes are down, because *wcPACK* needs to access the user database as well as the message files for this function.

You can use the /S "set timeout" command line switch to set a maximum number of minutes to wait for a conference to become available for packing.

wcPACK creates lock files for the conferences you ask it to pack, and checks every few seconds to see if all users are out of the conference before it begins packing. When a conference is locked, *Wildcat!* displays a message to the caller that the conference is currently unavailable.

Synchronizing mail tossing and mail packing

Mail tossing by *wcGATE, wcMAIL* and *wcECHO* can take place during message packing, even when *wcPACK* is processing an echomail conference at the same time one of the other programs is tossing mail into it. The mail tosser will create a temporary directory under your WILDCAT home directory called MSGLOCK, and creates temporary message files into which it imports messages.

When *wcPACK* releases the message data file, you will need to merge the temporary message tossing file back into the freshly-packed message data file. When message tossing has completed, use the /N command line switch in *wcPACK* to update message data files with the new messages.

Command line options

Like most other *Wildcat!* utility programs, *wcPACK* displays a list of command line options when you type

```
WCPACK /? ENTER
```

Here is a list of *wcPACK* command line options:

Switch	Operation
/A	Process all conferences
/B	Create renumber backup files
/C:[name]	Configuration file for automatic packing
/D ###	Delete messages older than ### days
/E	Kill private received messages
/I	Display rebuild statistics
/K:#####	Keep ##### messages
/L	Last messages read repair mode
/N	Toss saved messages to system
/R	Renumber and pack specified conferences
/S:###	Set *wcPACK* timeout in minutes
/T	Kill received file attachments

Deleting messages by number

wcPACK will trim the size of the message data file by deleting old mail. For instance, if you want to trim message conferences 1 through 5 and keep only the newest 500 messages in each one, use a command line like this:

```
WCPACK /K:500 1-5 ENTER
```

or

```
WCPACK /K:500 ENTER
```

Deleting messages by days old

Another way to use *wcPACK* is to delete messages based on age. If you want messages in conferences 1, 2 and 3 to have a lifespan of 30 days, try the following command line:

```
WCPACK /D:30 1-3 ENTER
```

Saving your commands in a configuration file

Instead of typing the command line each time, you can save your command lines in a configuration file. *wcPACK* will process each command in order. The configuration file can have any name you want.

Here is an example of a *wcPACK* configuration file that performs several operations:

`1`	Pack conference 1
`2`	Pack conference 2
`30-40 /t`	Pack conferences 30-40, and delete received attachments.
`/R 0`	Pack and renumber conference 0

Load the configuration file like this:

```
WCPACK /C:FILENAME.CFG
```

Renumbering

Wildcat! can store a maximum of 65520 message *numbers* in each conference area before the message file fills up — at that point *Wildcat!* can't add any more records to the message file and will report an error.

If, for example, the range of message numbers in a conference goes from 62531 to 64362, you can reset the starting and ending message numbers from 1 again by renumbering the messages. The Renumber command switch is /R.

Safety backup mode during renumber

Ordinary message packing procedures rarely cause problems, since the affected message data file can easily be rebuilt using *wcREPAIR*. Renumbering, however, also affects your user database files ALLUSERS.DAT and .IX, and USERCONF.DAT.

You should not renumber your message data files until there is a clear need to do so. Daily or weekly renumbering increases the likelihood that a system error could corrupt your user and message data files. A power failure or disk error during renumbering can cause serious data corruption. We strongly recommend making a backup of your user data files before renumbering.

wcPACK has some additional command line options you can use during message renumbering that will create backup files during the operation, and report errors or inconsistencies when the renumbering has been completed. Both options require sufficient additional disk space for the backup files.

/B – Create renumber backup files

When *wcPACK* renumbers messages, it must also reset the high message number for each user record, in each conference. To do this, *wcPACK* creates a temporary file as it renumbers messages with the name of the message data file and the extension .REB, and uses this temporary file to update the user file.

/L – Restore user message pointers from .REB files

If for some reason *wcPACK* is unable to complete the process, one or more .REB files will be left on the disk. You can restart the user record update without having to go through the entire renumbering process by using the /L command line switch. *wcPACK* will clean up its temporary files when it successfully completes the job.

Recovering from a system crash

If a system error or power failure interrupts *wcPACK*, some temporary files may be left behind that can prevent callers from accessing certain conferences. To recover from a system crash, follow this procedure:

1. Change to the MSGLOCK directory below your WILDCAT home directory, and delete all the .LCK files.
2. Run *wcREPAIR* on any message data files that were being packed or renumbered at the time your system went down.
3. If you were renumbering, run *wcREPAIR* on your user data file as well.
4. If you used the /B command line switch when renumbering, your callers' message pointers for each conference will be stored in temporary files ending in .REB. Start *wcPACK* again with the /L command line switch to update the callers' high message pointers properly.

File database maintenance

You can get to the file database screen from the Sysop menu command "Files editor". The file database stores the file name, size, date and path, along with other information about the file: the uploader's name, the number of times the file has been downloaded, and so on.

File Sysop commands

When you list files from the file menu, you'll see an additional "Sysop" command on the file info prompt. This command takes you directly to the Sysop menu file database record for the file, where you can view or edit the complete file record. Press Q to exit from the Sysop file database back to the file information screen.

Edit Commands

To edit a field in a file database record, type the number of the item you want to edit.

```
Record #          : 5551                          Match : NONE

[ 1] File name    : WC40REC.ZIP                     [16] Times Dnld'd   : 425
[ 2] Date         : 09/28/94  5:25p                 [17] Cost           : 0
[ 3] Last access  : 10/06/94  6:43a                 [18] On CD-ROM      : No
[ 4] Size         : 60410                           [19] No charge      : No
[ 5] Uploaded by  : PAUL DAVIS                      [20] Never overwrite: No
[ 6] Password     :                                 [21] Never delete   : No
[ 7] Key 1        : MODULES                         [22] U/L in progress: No
[ 8] Key 2        : STRUCTURES                      [23] Stored offline : No
[ 9] Key 3        : EXAMPLES                        [24] Long desc.     : Yes
[10] Key 4        : WILDCAT!                        [25] Failed scan    : No
[11] Key 5        : DEVELOPERS
[12] Key 6        :
[13] Area         : 35 - MSI WILDCAT! release files
[14] Short desc.  : This is the modules, structures and examples for Wildcat! >>
[15] Stored path  :

Edit   [1..25], [S]earch, [N]ext, [F]ind, [R]ead, [X]fer, [H]elp, Fr[e]shen,
[A]dd, [M]atch, [D]elete, [P]rev, [J]ump, [V]iew, [C]opy, [U]ser, [Q]uit?

 GWEN BARNES          176 982  Local  STAFF       |Key|Prn|Pag|Bel|Cap|
```

Adding files

You can add files to *Wildcat!* in several ways. First, as we showed you in Chapter 3, *Wildcat! setup*, you can use *wcFILE* to scan a drive and add many files at a time.

The second way to add files is to upload them at the File menu "Upload" prompt. You can upload files if you're logged on locally — *Wildcat!* will ask you for the path and file names to upload instead of prompting you for a file transfer protocol. To upload more than one file at a time, use the DOS Wildcard characters * and ?. *Wildcat!* will copy the files to the correct file area, and prompt you to enter descriptions.

The third way to add files is from the Sysop menu "Files editor" command. First, copy the files you want to add into a file path associated with a *Wildcat!* file area. Then type A at the edit prompt. Once again, you can use DOS Wildcard characters to add more than one file at a time. If the files you add are in the file area path, *Wildcat!* will fill in the file date and size automatically.

If the file you want to add is not in the path belonging to a file area, you can still add it from this menu. Enter the file name, then in the field for "CD path", enter the drive and path where the file actually exists. A file does not need to be on a CD-ROM for you to use this "indirect" procedure. Use the "Freshen" command to update the file date and size information.

Finding a file

You can locate a file by matching, jumping, searching or finding. These functions work in much the same way here as they do in the user database.

Deleting files

You can delete a file from the database, and you can optionally delete the file from the disk as well. Be careful! Once you delete a file from the database, you cannot undelete the record.

Moving files

There are two ways to move a file from one file area to another. The first way is to simply change the file area. *Wildcat!* will move the file on disk, if necessary, keeping the file's original date and time in the database record.

The second way to move a file is with the **Xfer** command — an abbreviation for "Transfer". If you "transfer" a file from one area to another, *Wildcat!* will prompt you for the new file area, then it changes the date and time in the file database record to today, so the file will show up when callers list new files.

This is a handy way to move files from your upload area to download areas for your callers.

Freshening files

You can update the file database record with a file's actual date, time and size with the **Freshen** command.

Adding password protection to a file

You can prevent callers from downloading or even listing certain files if you protect files with a password. Only callers with Sysop or Master Sysop access will be able to list the files, and nobody can download a password protected file without entering the correct password.

To password-protect a file, fill in the **Password** field in the file database record.

Viewing files

The file name and description rarely yield enough information about a file to be able to categorize it properly. *Wildcat!* offers two ways to look at the contents of a file, right from the file database screen.

View

Wildcat! allows you to add external file viewing utilities to the file menu command "View ZIP file". You can execute the same file viewing utility automatically from the file database screen. When you view a file from this prompt, *Wildcat!* will swap out and execute VIEWCOMP.BAT. You can find out more about VIEWCOMP.BAT in Chapter 6, *Customizing*.

Read

If the file is plain ASCII text, you can read it directly from this screen. *Wildcat!* will automatically add screen pauses for you, and you can scroll forwards and backwards within a file.

Changing a file description

You can store two sets of description information for each file. The first description is a 70 character description, stored in the **Short desc.** field. The second description can be up to 72 characters wide by 15 lines long, and is stored in the **Long desc.** field.

```
Record #          : 5551                          Match : NONE

[ 1] File name    : WC40REC.ZIP                     [16] Times Dnld'd    : 425
[ 2] Date         : 09/28/94  5:25p                 [17] Cost            : 0
[ 3] Last access  : 10/06/94  6:43a                 [18] On CD-ROM       : No
[ 4] Size         : 60410                           [19] No charge       : No
[ 5] Uploaded by  : PAUL DAVIS                      [20] Never overwrite: No
[ 6] Password     :                                 [21] Never delete    : No
[ 7] Key 1        : MODULES                         [22] U/L in progress: No
[ 8] Key 2        : STRUCTURES                      [23] Stored offline : No
[ 9] Key 3        : EXAMPLES                        [24] Long desc.      : Yes
[10] Key 4        : WILDCAT!                        [25] Failed scan     : No
[11] Key 5        : DEVELOPERS
[12] Key 6        :
[13] Area         : 35 - MSI WILDCAT! release files
[14] Short desc.  : This is the modules, structures and examples for Wildcat! >>
[15] Stored path  :

Edit   [1..25], [S]earch, [N]ext, [F]ind, [R]ead, [X]fer, [H]elp, Fr[e]shen,
[A]dd, [M]atch, [D]elete, [P]rev, [J]ump, [V]iew, [C]opy, [U]ser, [Q]uit? 14
Enter file description (70 chars)
 [This is the modules, structures and examples for Wildcat! 4 Developers]

 GWEN BARNES          176 981  Local  STAFF       |Key|Prn|Pag|Bel|Cap|
```

```
File name:  WC40REC.ZIP                              [ESCAPE] Save/Edit
                                                     [Ctrl-Z] Display Help
                                                     [Ctrl-V] Insert mode : On
   (----+----1----+----2----+----3----+----4----+----5----+----6----+----7--)
  1: This file contains all the information you need to develop third party
  2: applications for Wildcat! 4, we have included compilable source code as
  3: well as examples on how to use the various units and objects that are
  4: included. There are units for all three databases (User, File and
  5: Message) as well as code for using the Quick Index files (i.e
  6: ALLFILES.QX), all the units provided are the same code we used to
  7: develop Wildcat! 4.
  8:
  9: Enjoy
 10:
 11:
 12:
 13:
 14:
 15:

 GWEN BARNES          176 981  Local  STAFF       |Key|Prn|Pag|Bel|Cap|
```

Relational links to other databases

You can view the user record of the file's uploader, and even send a message to the user without having to leave the file database screen. Use the **User** command to jump to the uploader's user record. When you've finished viewing the user record, use the **Quit** command to return to the file screen.

Sysop Download and Upload

You can add two optional commands to your Sysop menu using *MAKEMENU*. These commands are "Sysop Download" and "Sysop Upload". These two commands allow you to upload and download files to and from any DOS path you specify, bypassing the file database entirely.

Wildcat! will prompt you for path and file name for a Sysop Download, and, depending on your user settings, the transfer protocol you would like to use. Wildcard characters are acceptable for multiple files.

For Sysop Uploads, *Wildcat!* will ask you to specify the destination directory and, if you use a non-batch file transfer protocol, the destination file names.

You can find out more about using *MAKEMENU* in Chapter 6, *Customizing*.

Repairing a corrupted groups database

If you are using group databases to support multiple CD-ROM files, and if your error log indicates you have a corrupted group database, you can repair it using the program AREPAIR.EXE in your WILDCAT home directory (normally C:\WILDCAT). To run AREPAIR, type

```
AREPAIR ENTER
```

It will process all your group databases, and report successful completion when it is done.

Chat Sysop commands

The Master Sysop and Chat Sysop have special access rights to all of the channels and functions with the exception of "/TALK" and "/RESPOND". If a Sysop is monitoring a private channel and the owner or any others in the channel use the "/LIST" command the Sysop will be included on this list. There are no options where the Sysop is ever invisible to users.

Command	Type	Notes
/ENDCHAT <Name>	Sysop	Remove the user from the chat channel and dump them back to the BBS.
/LOCKOUT <Name>	Sysop	Log the user off *wcCHAT*, the BBS and lock out their UserID in the database.
/LOGOFF <Name>	Sysop	Log the user off *wcCHAT* and the BBS.
/REMOVE <Name>	Sysop	Remove the user from the current channel.
/SYSJOIN	Sysop	Join any private or global channel.

Database errors

Database errors can occur when one of the database files is damaged for some reason — for instance an index key is incorrectly saved, or a database record is corrupt. When an error occurs, *Wildcat!* records an error messages in a file called ERROR.LOG, in the *Wildcat!* home directory. This is a plain text file you can look at with a text editor or file viewer. Here is an example of what an ERROR.LOG file might look like:

```
Node 4: Didn't receive OK from modem after 5 attempts
Node 4: Didn't receive OK from modem after 5 attempts
SYSTEM CRASH - Node: 2
 - Program : F:\PRIVATE\WCMAIL.EXE
 - Memory  : 60928
 - During  : FILE DATABASE : Unable to lock database!
 - DESC    : BTREE ERROR -> File defect, that can be corrected by rebuild. 10010
. Version: 4.0MPβ N
 - When    : Error occurred at 16:46 on 06/12/94
NON-FATAL error on node 4: Error occurred at 20:03 on 06/12/94
 - Program : F:\PRIVATE\WILDCAT.EXE
 - Memory  : 57360
 - Error   : No choices available in question 11 for QUESNEW
Node 15: Didn't receive OK from modem after 5 attempts
Node 9: Didn't receive OK from modem after 5 attempts
Node 9: Didn't receive OK from modem after 5 attempts
SYSTEM CRASH - Node: 17
 - Program : F:\PRIVATE\WILDCAT.EXE
 - Memory  : 117288
 - During  : No secprofile loaded for user, cannot switch files
 - DESC    : File access denied. Version: 4.0MPβ R
 - When    : Error occurred at 01:05 on 06/13/94
Node 2: Didn't receive OK from modem after 5 attempts
[C]ontinue, [N]onStop, [S]top? [C]
 GWEN BARNES          176 862  Local  STAFF        |Key|Prn|Pag|Bel|Cap|m177k,s12k
```

The error message usually indicates the date and time the error occurred, a description of the error and the database affected. Unless the error message clearly indicates some other problem, the normal solution is to take all nodes down and run *wcREPAIR* on the affected database.

What is the difference between SYSTEM CRASH errors and NON-FATAL errors? What should I do about them?

SYSTEM CRASH errors indicate that *Wildcat!* was unable to recover and exited with an errorlevel of 1. If your CAT.BAT file was set up correctly, it was automatically restarted. These errors are listed in the ERROR.LOG and are accompanied by a description, location, date and time, and often a suggestion on how to fix the problem.

NON-FATAL errors indicate that a problem was encountered that was not serious enough to stop operation. These errors usually include a brief explanation of the error, often enough to enable you to correct the configuration problem. If you encounter repeated errors which are unexplained, call technical support.

Some other conditions that can cause an error message, with their error numbers, are:

Error Type	Explanation
4 9901 Too Many Files Open	A program has tried to open more files than DOS can allow. Use HANDLES.EXE to see how many file handles are available. If the number of handles is less than 15, increase the number in the FILES= statement in CONFIG.SYS to 40 or more. Multi-line systems, file servers and PCs running under DESQview or Windows may require even more file handles.
5 File Access Denied	A program has tried to read or write to a file that has some form of protection preventing the operation from taking place. Some possible reasons are A program has tried to add information to a file or sub-directory that is marked "read only". A program has tried to create a file or subdirectory that already exists. A program has tried to remove a sub-directory that is not empty, an invalid sub-directory, or the root directory. The program has not already opened the file for reading or writing.
100 Disk Read Error	An program has opened a file and tried to read past the end of file marker. This may be because the file is damaged, and is for some reason shorter than the program expected it to be. This is sometimes an indication of more serious disk or file corruption. You should exit all programs and reboot your PC, then run a disk diagnostic program such as CHKDSK or SCANDISK provided with MS-DOS, or a commercial disk utility such as Norton Disk Doctor or PC Tools. Ask a qualified PC technician for help if you cannot resolve the problem yourself.
101 Disk Write Error	The program ran out of disk space while it was trying to save a file. Try freeing up as much disk space as you can, and run the program again.

Error Type	Explanation
209 Overlay File Read Error	*Wildcat!* or one of its utility programs was unable locate its overlay file. This can happen when you store the overlay file in a directory that is not in the DOS path, or if your network connection to the BBS drive is broken.
9900 Invalid Path Name	The program could not find the path specified in its configuration file, or the path name contained illegal characters. Check your configuration and ensure that all specified subdirectories do in fact exist and have legal directory names.
9902 Current Directory Is Full	A program has tried to save more files in a directory than DOS will allow. This error is rare, but it can occur when you try to save too many files in the root directory. Move any unnecessary files from the root directory, and try running the program again.
9903 File Not Found	The program cannot find the file you asked it to access. Review your configuration and ensure that file and path names are spelled correctly. If the file and path names are correct, it could indicate a shortage of file handles. Try increasing the FILES= statement in CONFIG.SYS, reboot your PC and try again.
9904 Invalid File Descriptor	This file name specified in your configuration contains some invalid DOS characters. Review your configuration and ensure that file and path names contain only valid DOS characters.
10110 Drive Not Ready	The program was unable to access the hard drive — this is an indication of a hardware problem of some kind. Turn your PC off, wait a few seconds and turn it on again. If you are unable to access the drive from DOS, have your PC serviced by a qualified technician.
10140 Unexpected DOS Error	DOS returned an error message when the program tried to access a file. Another program may be trying to access the file at the same time, or the file or disk may be write protected. Check the network mode in *MAKEWILD* and load DOS SHARE if necessary, then try again.

Error Type	Explanation
10310 Network Initialization Error	This error typically indicates a problem accessing the network. Is there really a network running?
10356 Insufficient Memory	There is not enough available memory to allow proper operation of the program. Increase memory or increase the DESQview window size.
10170 Consistency of fileblock endangered	There are two or more tasks sharing the same node ID number. Check all batch files and ensure that each has a unique node ID.

Wildcat! seems to run OK, but I get an error 202 or 204 that talks about a heap/stack problem after it gets going.

Both these numbers indicate a Heap/Stack Collision. Most of the time it means you are attempting to run *Wildcat!* without enough memory available. If you have any TSR programs utilities in memory such as a command line editor, remove them one at a time until the program functions properly, or increase memory to 640 K.

After *Wildcat!* gets started it gives me an error 4.

Error 4 is an indication that too many files are open at one time. The problem is almost always the omission of the statement "FILES=###" from the CONFIG.SYS file, where the ### is a sufficient number of file handles to run *Wildcat!*. See *System Requirements*.

Multi-line Errors

The file and record locking code in *Wildcat!* is very reliable and should offer trouble-free operation when set up properly.

Database lock retry

The most common error message is "Database Lock Retry # xxx" which makes 50 attempts to lock the database file needed. This error appears in

the upper right corner of the screen and can pop-up at any time there is heavy BBS traffic in a multi-line system.

The message should disappear quickly, usually within 5 or so retries when the database lock is removed. If it continues and gets to the maximum value of 50 retries, the system generates a fatal error, and places a note in the ACTIVITY.### and ERROR.LOG files.

If your system experiences unexplained Lock Errors during startup, it may indicate that you have set the network type in *MAKEWILD* to DOS Share, but you have not loaded SHARE.EXE in your system startup files.

Immediately following the failure *Wildcat!* will terminate, setting the errorlevel to 1, indicating an error. Your CAT.BAT file should check for this errorlevel and restart *Wildcat!*.

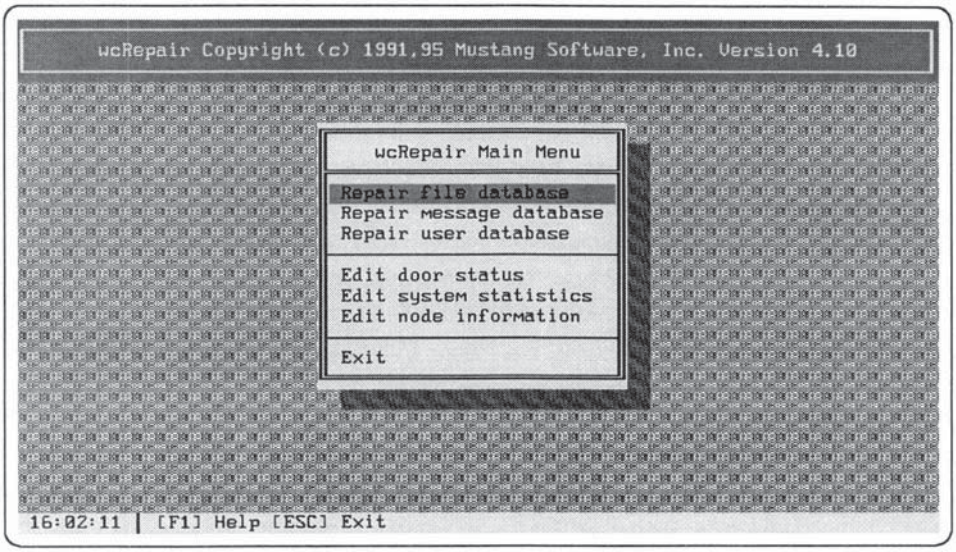
All other network error messages are specific in nature and are usually related to program code operation. Should you experience errors, first check to determine if they are related to SHARE or improper node ID assignments. Once these have been ruled out, run *wcREPAIR* (with all nodes down) and repair the database experiencing the problem. If the problem persists, print the contents of the ERROR.LOG and call our Technical Support department for assistance. Be prepared to review your complete system setup, node configurations, and the specific errors encountered.

wcREPAIR

Use *wcREPAIR* to edit your *Wildcat!* control files (NODEINFO.DAT and DOOR.DAT), and repair damaged message, file and user databases. You should not need to run *wcREPAIR* on a regular basis. Only run it on your databases if you suspect a problem — for instance if you see one of the error messages described in the previous paragraphs, or if you notice a discrepancy in the number of index keys for a database from the Sysop menu command "System Statistics".

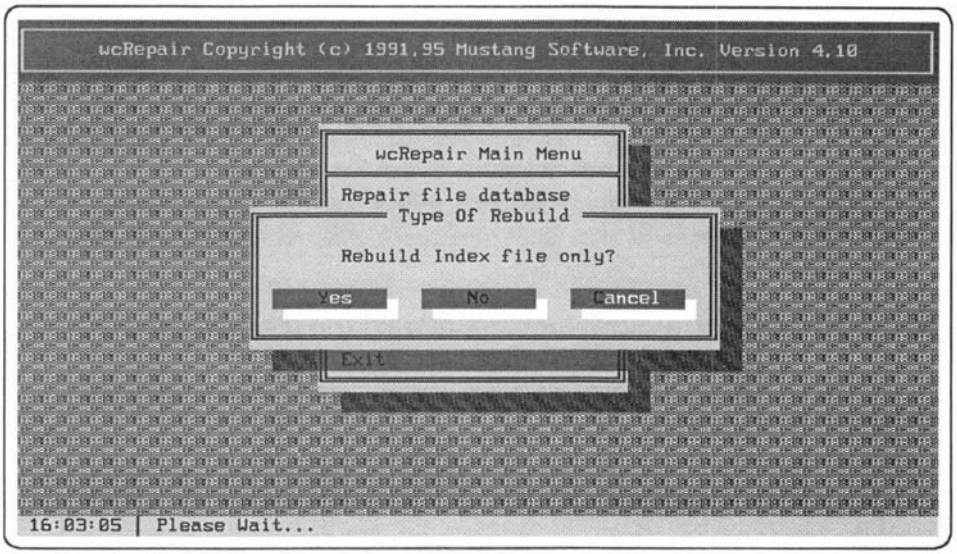
To run *wcREPAIR*, you must take all your *Wildcat!* nodes down. Don't *ever* run *wcREPAIR* while you're shelled out of *Wildcat!*. To start *wcREPAIR*, change to your *Wildcat!* home directory and type

```
WCREPAIR [ENTER]
```



Database Repair

The procedure for rebuilding users, files and messages is basically the same with some minor differences we'll review later. *wcREPAIR* has two operating modes. Once you've selected the database to rebuild, it will ask you if you want to rebuild the index file only, or rebuild both the data file and index file.



Index repair is faster, but can repair the damage only if you are sure the data file is intact and the problem is caused by a corrupted index file. If the data file is corrupted, you should repair both files.

wcREPAIR will first check to see if you have enough disk space to complete the repair. If that's okay, then it will delete the .IX (index) file, and save a backup copy of the damaged .DAT (data) file renamed with the extension .SAV. Next it will create a new .DAT file record by record from the backup. Corrupted records will be discarded.

When the .DAT file is completely rebuilt, *wcREPAIR* deletes the .SAV file and begins recreating the .IX file. A status window on your screen will show the progress of your database repair.

When *wcREPAIR* has finished rebuilding the file, it returns to the main menu.

Repairing message files

Unlike the user and file databases, the message databases are kept in separate files for each conference area. *wcREPAIR* will ask you to select which message files to rebuild. Move the highlight bar to the conference you want to repair, then press SPACE to select it. You can select as many conferences as you want, and *wcREPAIR* will rebuild them as a group. Press F10 to begin the repair.

What if *wcREPAIR* can't rebuild the file?

On rare occasions, *wcREPAIR* will be unable to repair your data file. The most common reasons are

- a hardware problem prevents *wcREPAIR* from correctly reading or writing to the disk
- your computer runs out of disk space unexpectedly
- the power fails or your PC locks up before the repair is completed
- the database is so badly corrupted *wcREPAIR* cannot continue finding valid records.

If *wcREPAIR* aborts during a database repair, it leaves the .SAV file on your disk along with the partially rebuilt .DAT file. As a safety measure, *wcREPAIR* will not run if a .SAV file from a previous rebuild is on the disk.

If you're confident the repair failed because of a lack of disk space or a power failure, first correct the source of the problem. Then delete or rename the .DAT file, rename the .SAV file to .DAT, and then try the repair again.

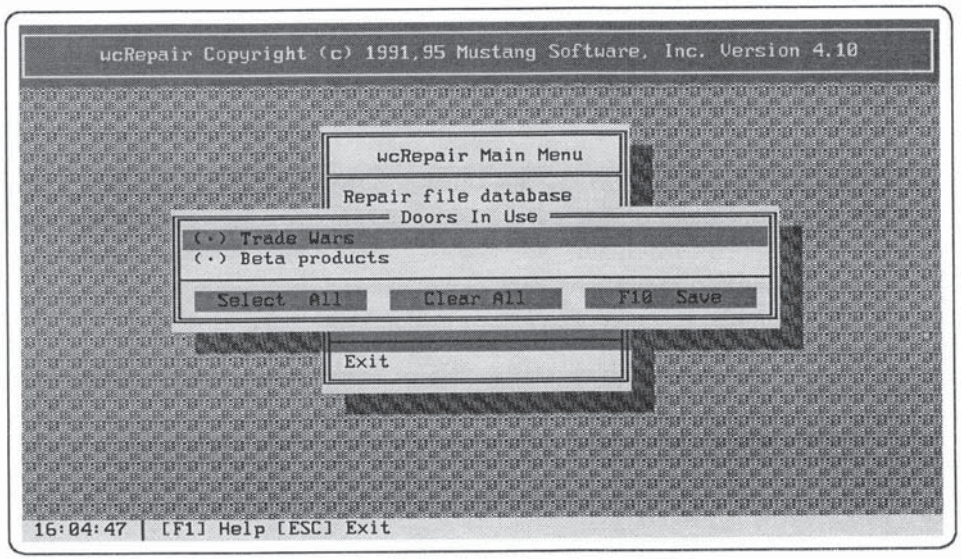
If a hardware problem caused the repair to fail, there's a strong possibility the same hardware problem caused the database corruption in the first place. If you have other indications of a disk or memory problem causing file corruption, you should have your PC serviced by an experienced technician before trying to repair your databases again.

MSI Technical Support staff may be able to assist you in cases where *wcREPAIR* cannot fix a damaged data file. Save a copy of the corrupted data file in case a support specialist requests it, and restore the data file from your last good backup.

If your data file is unrepairable and you have no backup, you can continue the rebuild with the partially-reconstructed .DAT file. You can copy the .SAV file to a backup directory or you can delete it. Then run *wcREPAIR* again on the .DAT file to create the proper index files. The restored data file will contain the good data records up to the point of corruption in the original file.

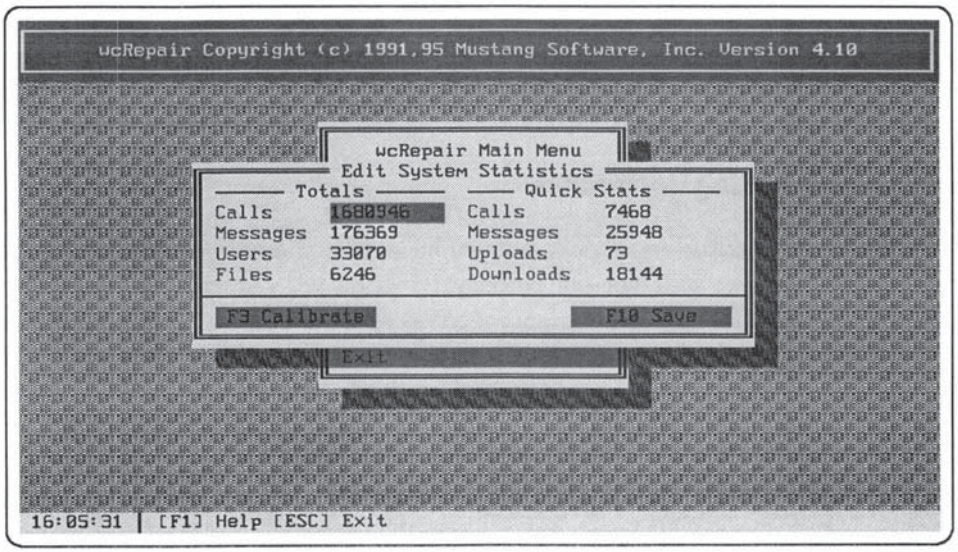
Editing door status

If a caller uses a door that you have defined as single-user, and for some reason does not exit properly, *Wildcat!* will consider the door "in-use" and lock out any subsequent callers from the door until you manually reset it. If *Wildcat!* reports that a door is "in use by another caller" even when you know it isn't, you can reset the door's status from this menu.



Doors that are "in-use" have a dot inside the parentheses to the left of the door name. Press SPACE to clear the dot and reset the door, then press F10 to save the changes.

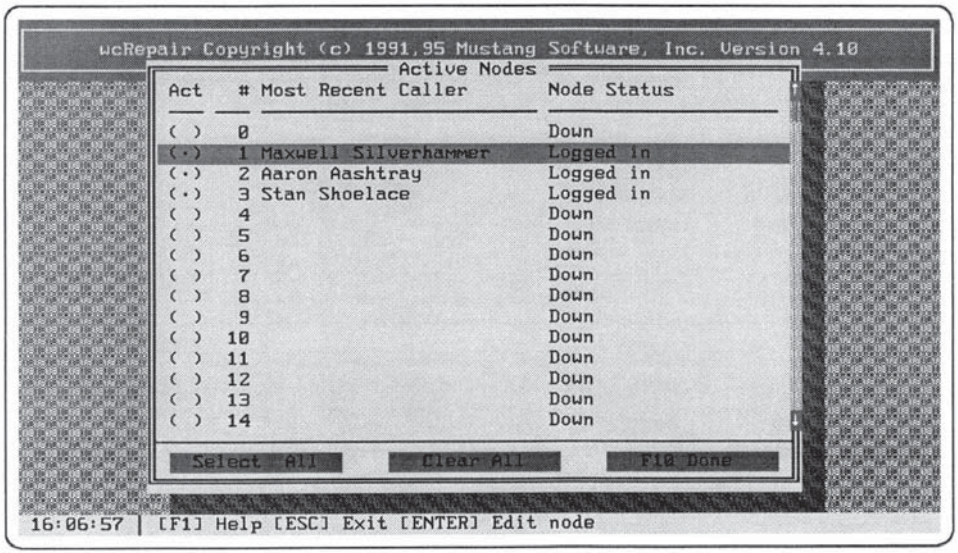
Editing system statistics



Wildcat! stores your system statistics in the NODEINFO.DAT file. If this file is damaged or deleted, the information in this screen may be inaccurate. *Wildcat!* will update the messages, users and files statistics automatically, but if you like to keep track of the total number of calls your system has received, you can enter that information here.

If the number of messages, files or users on your BBS appears wrong, press F3 to "Calibrate" or count the true number of records in each data file. Press F10 to save the new information. All nodes must be down to edit this information.

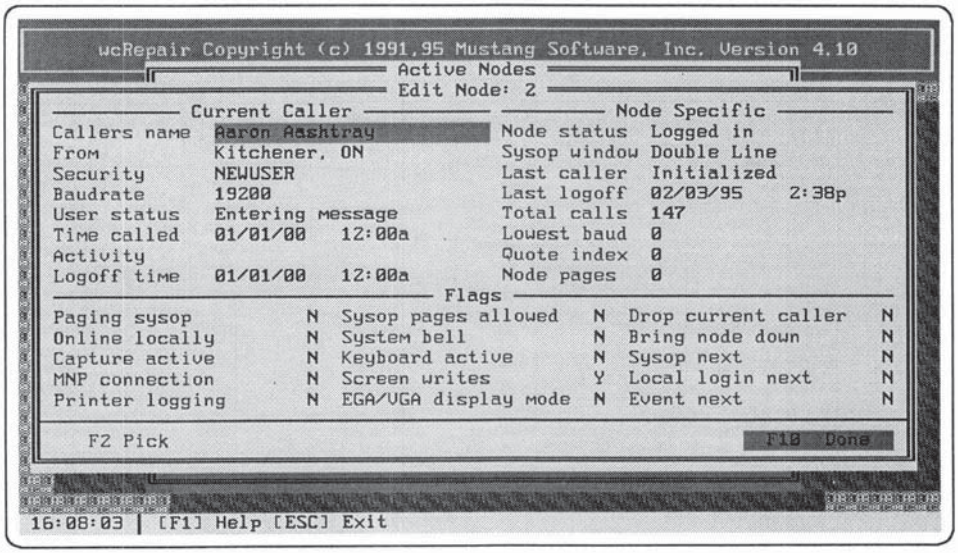
Editing node information



This screen shows information about each node. On a single line BBS, it will show nodes 0 and 1, while on multi-line systems, the total number of available nodes will be shown.

You may need to edit this information if a node crashes, for example during a power failure, and the incorrect node status information interferes with the operation of other programs — including *wcREPAIR* itself, which expects all nodes to be down for database repairs.

You can quickly change the "Active" status of one or more nodes. Select each one by moving the highlight bar and pressing SPACE. To view more detailed information about a node, press ENTER.



This information is maintained automatically by *Wildcat!*, but you can edit most of the information on this screen.

When callers use *Who is on other nodes* the information is totally out of order and doesn't make sense. What's happened?

Somehow your NODEINFO.DAT file has become damaged. Take all nodes down and try to edit the Node info file with *wcREPAIR*. If the information is too badly scrambled, simply exit *wcREPAIR* and delete the NODEINFO.DAT file. Bring up one node and let *Wildcat!* re-create a fresh NODEINFO.DAT, then activate any additional nodes.

Node management

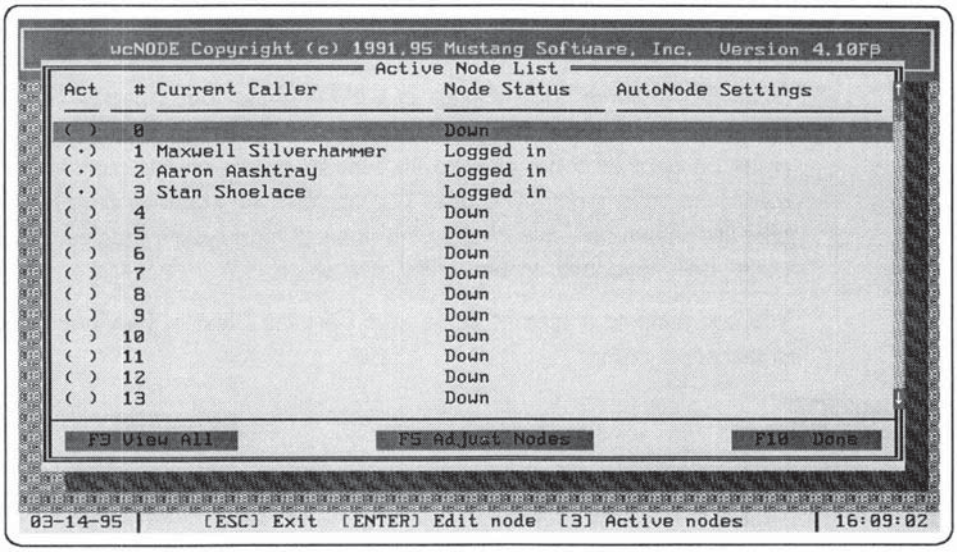
Many of the same node settings in *wcREPAIR* can be changed from the Sysop menu **Node management** command. You can easily log off a caller on another node, change his security or turn on the capture file to record the caller's activity to disk. You can also set nodes to drop to DOS after the current call, and change the status of most system toggles: printer, page, bell, keyboard, screen writes, and so on.

You can **Jump** to a specific node, and view the **Next** or **Previous** nodes, in numerical order.

wcNODE

Some operations, for instance database repairs, message base packing and renumbering, changes to menus and system configuration, and full system backups, require you to take all nodes off-line. *wcNODE* provides a fast way to bring nodes down, either selectively or as a group, immediately or when the current callers have logged off.

wcNODE can be run in one of two basic modes, command line or interactive. The interactive mode uses the standard range of key functions common to all of the *Wildcat!* utility programs.



The first screen you see lists all nodes in a scrolling window. You can quickly view the status of each node by paging up and down in the window. Press F3 to see every node's status. Beside each node number is a color-keyed symbol indicating "down", "up", "on-line", "event" or "repair". Press ESC to return to the main screen.

The F5 Adjust Nodes button clears any incorrect node settings. Press ENTER to view and edit settings for any individual node. This is almost the same screen you see in the node editing section of *wcREPAIR* — this one also has information on auto node assignment status.

In command line mode *wcNODE* can be run from a batch file or from the DOS prompt, and requires one or more of the following command line switches to operate.

The correct command line for *wcNODE* is

```
WCNODE [options] [nodes]
```

The options can be one or more from the following list. "Nodes" is the node number, or range of node numbers you want *wcNODE* to affect.

Switch	Action	Remarks
/A	Set all nodes for processing	Affects all nodes. Use this with one or more of the other command line options.
/D	Set node to go to DOS next	Immediately drops all idle nodes to DOS, and sets the DOS-next flag on active nodes.
/R	Take node down for maintenance	Prevents all nodes from taking calls, and closes all *Wildcat!* files so you can run *wcREPAIR, wcPACK* or other utilities that require *Wildcat!* to be down.
/S	Go to status screen when done	Displays a visual map of all nodes, with active and inactive status for each node.
/W	Wake node up from maintenance mode	Restores nodes to "Waiting for calls" after repair is completed.
/X	Remove caller from node	Immediately disconnects all callers on the specified nodes.

For instance, you can set nodes 1, 2 and 3 to come down for maintenance with the following command line:

```
WCNODE /R 1-3
```

To drop all nodes to DOS after the current call, use the following command:

```
WCNODE /D /A
```

Events

Events are scheduled maintenance tasks you want *Wildcat!* to run at a certain time on a certain day. There are many different kinds of events. Internal events are ones that change some aspect of *Wildcat!'s* internal operation, such as whether to allow callers at lower baud rates, or permit callers to page the Sysop, or turn off the system bell. External events are batch files that call some other program or operation such as a system backup, or an outgoing modem call to collect Echomail and import it into the BBS, or *wcCODE* applications that perform custom operations on your BBS.

A multi-line system gives you much more flexibility for scheduling events. You can divide your event processing among a number of nodes, so that for instance while one node is dialing out to pick up mail, another node might be creating an ALLFILES.LST with *wcPRO*, while still another sends out any pending faxes queued up by *wcFAX*.

Creating an event

Since each node has its own event scheduler, you should first decide which node or nodes should run specific events. Some events, such as "Set DOS next flag" and "Lowest baud rate" affect the current node only, while others such as "No page system wide" and "Reset quick stats" affect all nodes.

To create an event, log onto the node that will be affected. Select the Sysop menu command **Event management.** *Wildcat!* will show you a screen something like this.

```
  #  Description  Schedule Type  Start      Last Execute      Parameters
--- ------------- -------- ---- ------- -------------------- ----------
Current time:  Tue 06/14/94 2:52p

Edit [A]dd, [E]dit, [R]un, [D]elete, [S]chedule, [H]elp, [Q]uit? [Q]

GWEN BARNES          176 851  Local  STAFF      |Key|Prn|Pag|Bel|Cap|m180k,s14k
```

Type [A] to **Add**, then select the type of event you want to run from the following list:

Event type	Notes
No Sysop page	Turn off Sysop paging hours for this node.
Reset quick stats	Resets "quick statistics" display on the idle screen and begins counting calls, uploads, downloads and messages from 0.
Run a batch file	Swap to DOS and execute the batch file you specify here.
No page system wide	Turn off Sysop paging hours for all nodes.
Sysop page OK	Turn on Sysop paging hours for this node.
Set DOS next flag	Drop this node to DOS after the call closest to the scheduled event time.
Page system wide OK	Turn on Sysop paging hours for all nodes.
Lowest baud rate	Reject all callers at baud rates lower than the one you select.
Run *wcCODE* program	Executes the *wcCODE* application of your choice.

Event type	Notes
Bell on/off	Turn the speaker on or off for this node.
System wide bell on/off	Turn the speaker on or off for all nodes.

When you have selected the type of event, you will then be asked to select the days and times the event should run. You can select one or more days in any combination, or every day, plus hourly, daily, monthly or yearly schedules. You must select at least one scheduled period for your event to run.

```
Current time:  Tue 06/14/94 2:52p

Edit [A]dd, [E]dit, [R]un, [D]elete, [S]chedule, [H]elp, [Q]uit? [A]
Type of event:

[ 1] - No sysop page          [ 8] - Lowest baud rate
[ 2] - Reset quick stats      [ 9] - Run wcCODE file
[ 3] - Run a batch file       [10] - Bell on
[ 4] - No page system wide    [11] - Bell off
[ 5] - Sysop page ok          [12] - System wide bell on
[ 6] - Set DOS next flag      [13] - Sysem wide bell off
[ 7] - Page system wide ok

Event type or [ENTER] to abort? [1 ]
Select schedule to run event:

[H]ourly  : run every x hours
[D]aily   : run on specified days of the week
[M]onthly : run on a specified day of the month
[Y]early  : run on a specified date in the year

[A]bort

Enter schedule type [H D M Y A]? [H]
 GWEN BARNES          176 851  Local  STAFF        |Key|Prn|Pag|Bel|Cap|m180k,s13k
```

Select **Save & Continue** to move to the next screen. This screen allows you to schedule your event as **Flexible**, **Soft** or **Hard**.

Soft, hard, or flexible?

Flexible events are events that can happen any time, so long as they run on the specified day during an inactive period for the BBS. Two *MAKEWILD* settings control when and how flexible events are executed,

and both are on the first screen of "General Information". You cannot schedule an hourly event as a flexible event.

Inactivity before flexible events is the number of minutes the BBS must be idle before the flex event will run. **Time to start forcing flexible events** is the time of day at which the event must execute if the BBS has not been idle long enough during the current day for the flex event to run.

Soft events are events that should run at or near a specified time, without disrupting your callers' on-line sessions. *Wildcat!* will run the event at the specified time if it is idle, or immediately after the call closest to the specified time if a caller is logged on.

Hard events are time-critical operations such as mail runs for which your mail hub expects you to keep to a schedule. *Wildcat!* will inform callers who log on close to the event time that their time on line will be reduced to allow the event to proceed on schedule. *Wildcat!* will log the caller off five minutes before the scheduled event time, then starts a countdown to the actual event time, then runs the event.

Setting the time

Unless you define the event as Flexible, you will be prompted to enter the time of day *Wildcat!* should run the event. Enter the time in 24-hour format, for instance 10:00 for 10:00 a.m., 18:30 for 6:30 p.m. When you've entered the time, press ENTER to save the event and return to the event management screen.

Changing or rescheduling an event

You can change an event's action, type, and days, and you can also disable an event temporarily without having to delete and re-enter your information.

```
  #  Description  Schedule Type  Start      Last Execute      Parameters
--- ------------- -------- ---- -------- -------------------- ----------
» 1 No Sysop Page 1 hours  Soft          Tue 06/14/94 2:54p
Current time:  Tue 06/14/94 2:54p

Edit [A]dd, [E]dit, [R]un, [D]elete, [S]chedule, [H]elp, [Q]uit? [E]
Edit which event? [1  ]

[E]nabled        : Yes
[A]ction         : No Sysop Page
[T]ype           : Soft
S[c]hedule       : Hourly
Hour [D]elay     : Every 1 hours

[L]ast executed : 06/14/94 14:54

Edit event [S]ave, [Q]uit? [ ]

 GWEN BARNES          176 850  Local  STAFF      |Key|Prn|Pag|Bel|Cap|m180k,s13k
```

The **Last executed** prompt lets you change the time and date an event was last run by *Wildcat!*. This allows you to re-run an event that was missed because the *Wildcat!* node in question was off-line.

Batch file execution from events

The "Execute Batch File" event type offers you two choices on how to execute the batch file: Shell or Terminate. A Shell event executes the batch file you specify, then returns immediately to *Wildcat!*. A Terminate event copies the batch file to "EVENT.BAT" in your node work directory, then terminates *Wildcat!*. It is then up to your CAT.BAT file to test for the existence of EVENT.BAT, and execute it.

Back in Chapter 3, we showed you some example CAT.BAT files for systems that terminate for doors and events. Here once again is a very basic CAT.BAT file that will branch to another batch file when *Wildcat!* terminates:

```
@ECHO OFF
@echo Now Executing CAT.BAT for Node %WCNODEID%
:RELOAD
C:
CD \WILDCAT
WILDCAT
IF ERRORLEVEL 1 GOTO RELOAD
IF EXIST WCWORK\NODE%WCNODEID%\EVENT.BAT WCWORK\NODE%WCNODEID%\EVENT
IF EXIST WCWORK\NODE%WCNODEID%\DOOR.BAT WCWORK\NODE%WCNODEID%\DOOR
ECHO ON
```

Don't forget to add the command CAT.BAT to the end of your event and door batch files if you terminate, or *Wildcat!* will not be able to restart.

Synchronizing an event for all nodes

Some system maintenance procedures require all nodes to be down, for instance renumbering the message files. The easiest way to synchronize events on multiple nodes is to schedule a hard event for one node that runs *wcNODE* with a command line to take all the other nodes down for maintenance.

wcWAIT

wcWAIT is a command line utility you can use to delay the execution of commands in a batch file until a certain number of seconds has passed, a specific time is reached, or until all nodes report "down for maintenance" via NODEINFO.DAT.

You can view a list of command line options by typing

```
wcWAIT /? ENTER
```

You can use *wcWAIT* to help synchronize nodes for an event. For instance, you are running a soft event that requires all nodes to be down for maintenance, and you want to wait until the last caller logs off.

Use *wcWAIT* to pause your batch file while it checks each node until all nodes are down. Here's an example command line that sets all nodes down for maintenance with *wcNODE*, waits waits till all nodes are down no matter how long it takes, then runs *wcPACK*:

```
WCNODE /R /A
WCWAIT /R:F
WCPACK /A
WCNODE /W /A
```

Here is another example, showing an echomail event that must call a hub at a specific time:

```
WCECHO E H:MUSTANG
WCWAIT /T:02:15
QMODEMPRO /S=MAILRUN
WCECHO I H:MUSTANG
```

wcWAIT returns the following errorlevels, which you can use in batch files to branch to other routines:

Errorlevel	Explanation
0	Exit normal, all nodes released with /R, /S:n expired or /T reached
1	Exit because of a keypress
2	Exit because /R:n time reached before nodes cleared (/R only).

Here is an example event batch file that uses *wcWAIT* then tests the errorlevel before continuing:

```
WCNODE /R /A
WCWAIT /R:120
IF ERRORLEVEL 2 GOTO SKIP
IF ERRORLEVEL 1 GOTO STOP
REM It's OK to pack now!
WCPACK /A
:SKIP
WCNODE /A /W
:STOP
```

In this batch file, we tell all nodes to shut down for maintenance so we can run *wcPACK*. But we don't want to keep the BBS waiting all night for this to happen, so we use *wcWAIT* with a command line switch to wait

up to two hours. If we reach 120 minutes without going into maintenance mode, *wcWAIT* terminates with errorlevel 2 — in this case we skip packing the messages and wake up all nodes. We also check for a keypress, in case the Sysop wants to abort the event — *wcWAIT* exits with errorlevel 1 if this happens.

Here is a complete list of command line options for *wcWAIT:*

Option	Explanation
/R:#	Wait # minutes for nodes to report MAINTENANCE mode
/R:F	Wait forever for nodes to report MAINTENANCE mode
/S:#	Wait # seconds before continuing
/T:hh:mm	Wait until "hh:mm" (24 hour format) before continuing.

Running an event after each call

POSTCALL.RUN

One special kind of system event can be run after each call. This is called a "call processing" or "post call" event. This is the only type of event that is not controlled through the event management screen. It is extremely simple to create. All you need to do is make a batch file called POSTCALL.RUN and put it in the node directory, where it will be executed automatically by *Wildcat!*. To run a call processing event on *every* node, name the file POSTCALL.BAT and put it in your Batch directory.

Some uses for a postcall event are

- Scanning for outgoing and incoming Email
- Checking for a newly-answered questionnaire, and mailing yourself the answer file
- Running the *wcFAX FAXSERVE* program (part of the optional *wcPRO* utility package), to send outgoing faxes your callers have requested

You can also execute a *wcCODE* application automatically at the end of each call. LOGOFF.WCX is the "magic" file name, and it must be located in the *Wildcat!* home directory.

POSTCALL.WCX

A second type of call processing event can be handled by a *wcCODE* application. *Wildcat!* will execute POSTCALL.WCX after each call, if the file is found in the *Wildcat!* home directory.

Wildcat! holds all information about the current user in memory during the execution of POSTCALL.WCX, so you can use this *wcCODE* application to change a caller's settings if you like.

You can find out more about *wcCODE* in the Appendix to this book, or by calling MSI Sales at 800-999-9619 or 805-873-2500.

Where should my event batch files go?

Event batch files, just like any other batch files executed automatically by Wildcat!, belong in the Batch file directory. The only exception is for node-specific batch files, which are stored in the node directory with the extension .RUN. You can find out more about batch file operation in Chapter 6, *Customizing* in the section on Doors and External Programs.

6 - Customizing

My specialty is being right when other people are wrong.

George Bernard Shaw

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While the "stock" *Wildcat!* installation may be all some Sysops and their callers need, many of you will want to give your BBS the "personal touch". In this chapter we'll explain how to use various utility programs to add custom features to your BBS.

Display files

What is a display file

Display files include information files, hello screens, menus, help files, and any other file you ask *Wildcat!* to show to a caller in response to a command.

Some display file names are "internal" — that is, their names are fixed within *Wildcat!'s* program code. Some examples of internal display files are hello screens, bulletins, help screens and information files. Other display file names are defined by you, and are associated with menus and menu commands.

No-color, color, and RIP

Wildcat! supports three display types: *Wildcat!* color, ANSI color, and RIPscrip (Remote Imaging Protocol). *Wildcat!* will try to determine the caller's display type as the caller is logging on, and shows the appropriate set of screens. Each display type has its own set of files, for instance HELLO1.BBS for *Wildcat!* color, HELLO1.SCR for ANSI color, and HELLO1.RIP for RIPscrip.

The .BBS *Wildcat!* color files do double duty as black and white or color files. You can include color information by adding *Wildcat!* color codes (@0E@ for yellow text on a black background, for instance). *Wildcat!* sends color screens to ANSI-capable callers who have color or auto-detect turned on. Black and white screens are sent if the caller has black and white selected, or if ANSI was not detected during logon.

You can use the utility program *wcDRAW* to create .BBS display files. We'll discuses how to use *wcDRAW* later in this section.

The .SCR files are for ANSI color and animation. This set of files is completely optional, and is needed only if you want to provide ANSI graphics and animation for your ANSI-capable callers. There are several ANSI screen drawing programs available for download at MSI HQ BBS.

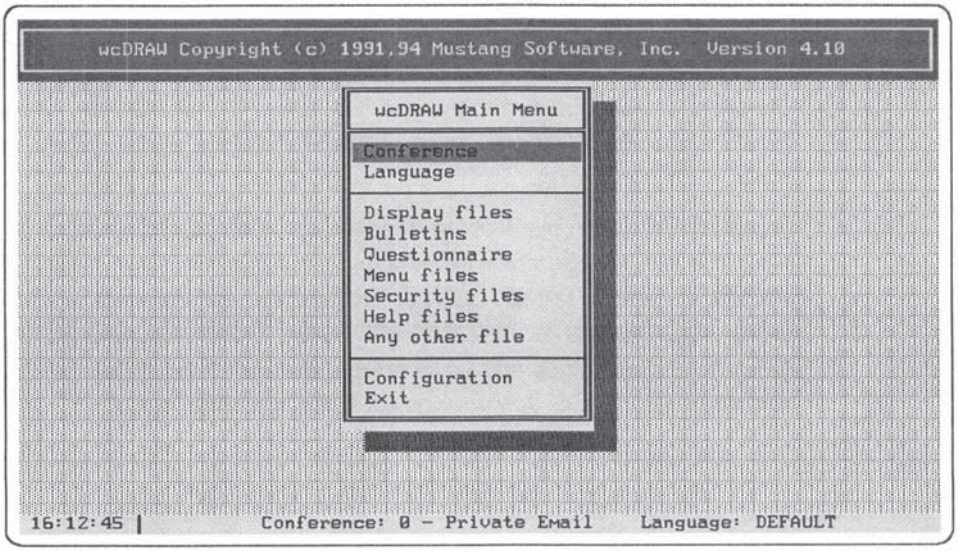
The .RIP graphic screens are for callers with RIPscrip emulation selected. These files provide a fully-graphical, mouse-driven interface for the BBS. You need a RIP-capable screen editor to create and edit RIP files. Once again, there are several RIP drawing programs available for download at MSI HQ BBS.

Using *wcDRAW* to edit display files

wcDRAW shares a common interface with other *Wildcat!* utilities, and you will already be familiar with most of the editing commands.

Starting *wcDRAW*

You should always start *wcDRAW* from your *Wildcat!* home directory so it can find your *Wildcat!* configuration files. The following screen shows the main menu.



Configuring your preferences

In addition to the built-in color editor, you can set *wcDRAW* to use your choice of external editors for .BBS, .SCR (ANSI) and .RIP (RIPscrip) files. *wcDRAW* will automatically shell out and execute your chosen editor when you select a file for editing.

To set up your own editors, select the **Configure** command on the *wcDRAW* main menu, and fill in the text entry fields for the programs you want to use. To use the built-in color editor for .BBS screens, leave this screen blank.

Selecting files

In order to edit or create files you must first select the LANGUAGE and CONFERENCE for the set of files you are interested in editing. Remember that each conference in *Wildcat!* can have different paths for each type of file.

Select the conference whose files you want to edit from the selection list. Note that the selected conference is then displayed on the bottom status line. You can also select a Language to edit, if you maintain multiple sets of language files.

Next, pick a type of file to edit or create: Display, Bulletin, Menu or Help files. You can also edit a file of your own choice from the "Any other file" menu selection.

Display files

The Display File selection list shows the name of each file followed by a short description, with a more detailed description of the currently highlighted file in a window at the bottom of the screen.

You may see additional characters in the column to the left of the file names. An asterisk indicates that the file currently exists. A musical note indicates that a .SCR (ANSI) version of the file exists while the letter "R" indicates that there is a RIP version of the file.

User-specific display files

You can create a display file that sends a message to a specific user ID during logon. *Wildcat!* compares the caller's user ID number with the U* files in the display directory. If a matching file is found, *Wildcat!* displays it once, then deletes it.

To create a user-specific display file, select the file name U*.* from the list. *wcDRAW* will pop up a selection list of user ID numbers and names.

To find a specific user, press F4 to enter a search string, then press ENTER to begin searching. *wcDRAW* will display the first user name that matches your search string. If that's not the one you want, press F5 to continue searching. To abort a search at any time, press ESC .

Bulletin files wcDRAW:

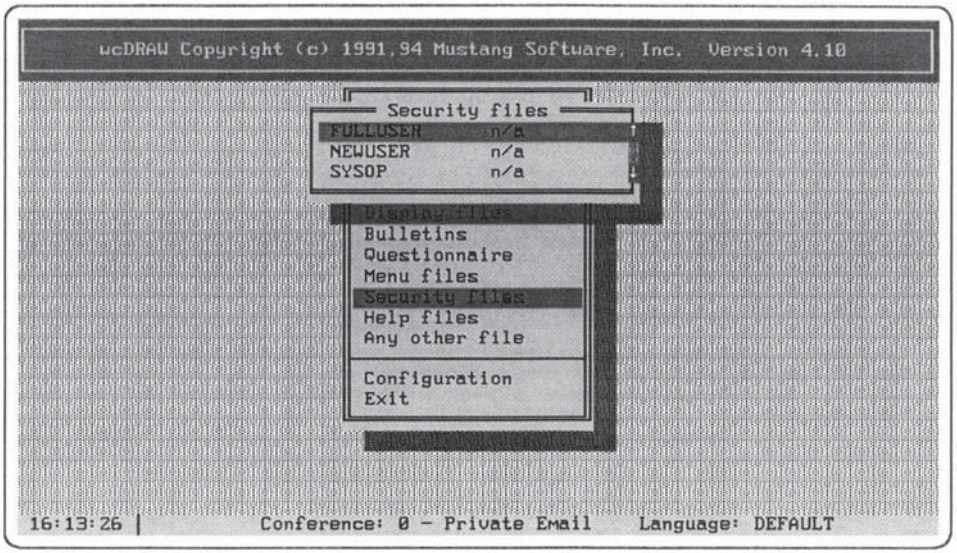
The selection list for Bulletins contains the bulletin file names for the selected conference, numbered from 1 to 9999. As with the display files, the column to the left of the file names indicates whether BBS, SCR and RIP versions of the file already exist.

Menu files

The selection list for Menu files provides additional information. Since each menu file is assigned to one or more specific security profiles, a second window indicates which security profiles are active for each file. The security profile window is updated as the highlight bar is moved to different menu filenames.

Security files

These are the "security display files" defined in *MAKEWILD* and shown to callers at each security profile during logon. Each security profile is displayed in a selection list, along with the security display file associated with it:



Help files

The selection list for Help files is very similar to the Display Files screen. Each help file is listed with a description of its use in the lower section of the window.

Any other file

Select this option to pop up a directory tree to edit any other text file.

Editing files

The editor STATUS LINE in *wcDRAW* provides feedback on a number of items:

Status line field	Notes
Color	The active Color is the color that will be used for new text, paint and fill operations.
*	The presence of an asterisk (*) between the color and position indicates the file has been changed since it was loaded into memory.
1:2	The cursor location is given in the format line:column (or row:column)
Mode	The mode can be Text, Selecting Block, Paste Block, Position, Single Line, Double line, Double Vertical or Double Horizontal.
Insert/Overtype	By default the editor INSERTS text, but may be changed to OVERTYPE by pressing the [INS] key. The current status is indicated by the height of the cursor. A tall cursor indicates INSERT operation while a flat cursor indicates OVERTYPE operation.
File	The full drive, path and filespec of the file in the editor.

Although *wcDRAW* can edit .BBS, .SCR and .RIP versions of files, the default is to edit the file with the .BBS extension. To select a .SCR or .RIP file, highlight the filename, then use [ALT] [A] for .SCR (ANSI) and [ALT] [R] for the .RIP version. Press [ENTER] to edit the .BBS version of the file.

Your file will then appear in the editor window. The end of the file is indicated as "-EOF-". This symbol indicates that no additional text or spaces are present to the right of or below the end of file marker.

Importing text

You can easily import prepared text files into the editor. ANSI color is converted to @ color codes during import. Lines are not word-wrapped during import but are truncated at 255 characters.

To import text press [ALT] [R] (Read) and select the file from the directory tree window. To change drives or directories enter the desired file specification in the Files field at the top of the window.

Adding/Changing color

The active text color is indicated at the left end of the status line. The word "Color" shows the foreground and background colors *wcDRAW* will use for text entry and color fill. To change the active color press [F2] for a color palette window.

Use the cursor keys or mouse to move the color selection box around the palette. The current color can be set to blink by pressing [B] or clicking on the Blink field in the palette display. The active color is shown in the lower left corner of the palette window in the words "TextColor".

Once the desired color is selected, press [ENTER] or double-click to exit the palette and save your choice. The selected color is then used for all text entry and paint commands until you change it again.

An alternative method for changing the active color is to move the cursor to the new color you want and press [ALT] [U] (Use color) to make it the active color.

Drawing boxes

Creating fancy box menus or display files is easy with *wcDRAW*'s line and box drawing features. To use a single, double or combination line style, press [ALT] [F8] before beginning to draw. The choices are presented as all single-line, all double-line, double-vertical with single-horizontal or single-vertical with double-horizontal. The options are arranged in a selection list.

Once the line type is selected, place your cursor where you want to begin drawing, then press [F5] to change from text mode to line mode. Press [F5] again to change back to text mode. Mouse users can move the current cursor position at any time during line drawing.

The active mode will be indicated on the status line located at the bottom of the screen. Intersecting lines will be connected automatically.

Cursor positioning

This ANSI operation is often called animation since it allows you to move the cursor to any location on a single screen for text placement. It is an ANSI feature and there is no equivalent @Code. Although *wcDRAW* allows you to enter ANSI cursor placement codes in .BBS files, you should probably only use this feature for true ANSI .SCR files.

Cursor positioning is handy for placing variable-length text inside a box or other fixed-width enclosure. We will illustrate one example in the paragraphs that follow.

We have drawn a box on the screen from top to bottom, one line at a time. Once completed, we use the ANSI cursor position code to move the caller's cursor to a specific set of coordinates, such as line 5 row 15. We then enter the variable length text overwrites the blank section in the middle of the previously drawn box.

This illustration shows the finished result.

```
+========= Special notice!! ==========+
| Your name:  Rick Heming             |
| Your phone: 805-873-2500            |
| Your security level: FULLUSER       |
+=====================================+
```

To produce the above example, draw the following plain box and text without any @Code information.

```
+========= Special notice!! ==========+
| Your name:                          |
| Your phone:                         |
| Your security level:                |
+=====================================+
```

To place the @Codes you need to start with your cursor at the end of your screen, which is where the ANSI cursor codes will be placed.

Press [ALT] [P] to activate POSITION mode. Move the cursor to the location where you want the @Code or other text to be placed. Then enter the @code, plus any other text you want to place at that location. Notice that the text or codes you enter are actually placed at the bottom of your file, preceded by the ANSI_cursor position code.

```
+========= Special notice!! ==========+
| Your name:                           |
| Your phone:                          |
| Your security level:                 |
+======================================+

←[15;23H@USER@
```

This is what the ANSI code should look like. When the file is displayed to the user it will have their name in the correct location.

Remember that all modem data is sent to the caller sequentially, from the top left of the file to the bottom right, line-by-line. If you send a code to position the cursor followed by an @code, then the @code information is displayed somewhere other than the end of the file on the caller's screen.

Meanwhile, any additional characters will be displayed immediately after the @code text. If you want them displayed elsewhere you need to put in another cursor position code. This applies even if you simply want to have the cursor return to the end of the file. For example, the following is probably not what you want to do:

```
+========= Special notice!! ==========+
| Your name:                           |
| Your phone:                          |
| Your security level:                 |
+======================================+
←[15;23H@USER@@PAUSE@
```

In the above INCORRECT example, the @PAUSE@ will not appear at the end of the file, but instead will show up in the middle of the screen, like this:

```
+========= Special notice!! ==========+
| Your name:  Rick Heming [C]ontinue, [N]onstop, [S]top
| Your phone:                          |
| Your security level:                 |
+=====================================+
```

If you use cursor positioning, remember to end the file with a cursor position code that places the cursor where you want it, usually at the end of the file on the caller's end. To place a final cursor position code, begin with the cursor at the end of any previous cursor positioning codes. Press [ALT] [P] to change to Position mode and move the cursor back to the location you want to have the caller's cursor stop. Press [ALT] [P] again and the position will be recorded.

Here's how to correct the previous example:

```
+========= Special notice!! ==========+
| Your name:                           |
| Your phone:                          |
| Your security level:                 |
+=====================================+
←[15;23H@USER@←[19;10H@PAUSE@
```

This corrected file displays as:

```
+========= Special notice!! ==========+
| Your name:  Rick Heming              |
| Your phone:                          |
| Your security level:                 |
+=====================================+
 [C]ontinue, [N]onstop, [S]top? [C]
```

Our final example shows the entire file necessary to display the full file used in our example, along with a -pause- prompt at the end:

```
+========= Special notice!! ==========+
| Your name:                           |
| Your phone:                          |
| Your security level:                 |
+======================================+
←[15;23H@USER@←[16;23H@PHONE@
←[17;23@SEC@←[@19;10H@PAUSE@
```

Here's what each sequence of codes does:

Command	Notes
←[15;23H	move to line 15, col 23
@USER@	print user's name
←[16;23H	move to line 16, col 23
@PHONE@	print the user's phone number
←[17;23H	move to line 17, col 23
@SEC@	print user's security profile
←[19;10H	move to line 19, col 10
@PAUSE@	print the -Pause- prompt

The final display to the caller is:

```
+========= Special notice!! ==========+
| Your name:  Rick Heming              |
| Your phone: 805-873-2500             |
| Your security level: FULLUSER        |
+======================================+
 [C]ontinue, [N]onstop, [S]top? [C]
```

Block operations

Many editing functions require moving, deleting or copying blocks of text or screen designs. The F3 key changes from TEXT mode to BLOCK mode. The active mode is shown on the status line at the bottom of the editing screen.

Position the cursor at a corner of the block to be selected and turn on BLOCK mode with the F3 key. After the BLOCK mode has been turned on, use the cursor keys to mark the block. Mouse users can enter BLOCK mode by placing the mouse cursor at a corner of the block to be marked and pressing and holding the left mouse button. Drag the mouse to select a block on screen.

Once a block is selected you can make many changes to the selected area.

Block Delete

Highlight the block and press the DEL key. Deleting a block actually fills the block with spaces in the active foreground and background color. If you want to clear the block to black, make sure your active color has a black background.

Block Copy

Highlight the block and copy it to the clipboard by pressing ALT C. The block will remain highlighted in order to allow additional block operations. If no additional block operations are needed, turn off block mode by pressing F3 again. Mouse users can turn off block mode by clicking anywhere on screen.

The clipboard only holds blocks of information that have been copied with ALT C — not deleted blocks of text. The clipboard can only hold one block of information at a time. Subsequent use of ALT C will overwrite the information on the clipboard.

Block Paste

Move the cursor to where the block is to be pasted and press [ENTER]. The same block of data can be pasted as many times as you like by again using [ALT] [C], moving the cursor and then pressing the [ENTER] key.

To view the contents of the clipboard at any time simply press [ALT] [V] to see the block on screen and then remove it from the screen with the [ESC] key.

Block Move

wcDRAW does not have a "move" command. To move a block you must mark it, then use [ALT] [C] to copy it to the clipboard. Then press the [DEL] key to delete the old block and un-mark it in the process. Then use [ALT] [V] and the arrow keys move it, and finally anchor it in the new position with the [ENTER] key.

When you move a block this way, *wcDRAW* paints the screen with blank spaces in the current color. Make sure that the correct background and foreground colors are set before using this rather cumbersome moving process.

Block Paint

To change the color of a block, mark the block and set the active color to the color desired for the block. Use the block paint key, [F4] to change all of the text in the block to the active color and un-mark the block.

Block Paint is also capable of restricting painting to portions of the selected block. This function, Selective painting, is activated with the [ALT] [F4] keys after marking a block. A window is displayed requesting the type of block paint desired:

Command	Notes
Paint background only	Change the background color of the entire block to the active background color. The active foreground color is ignored and the block foreground colors remain the same.
Paint foreground only	Change the foreground color of the entire block to the active foreground color. The active background color is ignored and the block background colors remain the same.
Selective paint	Change the foreground and background color, but only for certain characters, based on color. Only characters of a specified color in the block are changed. After selecting this choice, a color palette is displayed requesting the color of characters within the block that are to be changed to the active color.
Selective paint, Background only	Change the background *only*, and only for certain characters, based on background color. Only characters with a specified background color in the block are changed, and only their background color is altered. After selecting this choice, a color palette is displayed requesting the background color of characters within the block that are to be changed to the active background color.
Selective paint, foreground only	Change the foreground *only*, and only for certain characters, based on foreground color. Only characters of a specified foreground color in the block are changed, and only their foreground color is altered. After selecting this choice, a color palette is displayed requesting the foreground color of characters within the block that are to be changed to the active foreground color.

Block Fill

Use the Block Fill command to change the characters within a block. It affects *only* the characters in the marked block, it does not change the color. This lets you fill a multi- colored block with a character without changing the color.

Mark a block using the F3 key or mouse. Press the block fill key F7 to display a table of the 256 ASCII characters. Highlight the fill character desired and press ENTER or double-click. The block will be filled with the selected character.

Note that the F7 key also displays the extended ASCII table when blocks are not marked, and places the selected character at the cursor position.

Block Fill is also capable of replacing only certain characters within a block while leaving other characters alone. This function, Selective filling, is activated with the ALT F7 keys after marking a block.

Like the standard Block Fill command, an extended ASCII table is displayed. The difference is that the title of the window asks you to select a character to replace. The character you select will be the *only* character in the block that is affected by the fill command. After you have selected the character to replace, select the file character you want to use. The character selected here will replace the previous character everywhere it appears in the block. The color of the characters will not be changed.

For example, if we begin with a block of characters such as

```
[M]............Main menu
```

If we select the period character as the "character to replace" and the dash character as the "fill character", the resulting screen would be

```
[M]------------Main menu
```

Adding non-keyboard characters

To place non-keyboard characters into your file, pop up the ASCII table with the F7 key, then select the character from the extended ASCII table. The character selected is placed in your file at the cursor position. It is important to note that when Block mode is turned off the character selected from the table is placed in the cursor position, but when Block mode is turned on, the block is filled with the character selected .

If you find yourself repeatedly using an extended ASCII character, you may want to make use of the "NumLock key sets" feature. Press [F6] to display the key sets available. Once a key map is selected, you can enter a character from the key set by pressing the corresponding numeric key on the keypad. [NUM LOCK] must be on for this feature to operate.

While all extended keys are not mapped to the [NUM LOCK] keys, many of the most commonly used can be selected. Note that keyboards with a separate numeric keypad will be able to use both cursor keys and [NUM LOCK] key map keys at the same time, but other keyboards must use the [NUM LOCK] key to toggle between modes.

When a [NUM LOCK] key set is active the key mappings for the keypad are displayed on the editing screen in the lower right corner as a reminder. As your editing cursor moves to the half of the screen with the reminder box it automatically moves out of the way to the upper right corner. To cancel the use of [NUM LOCK] key sets use [F6] and select the standard numbers for the keypad.

Adding @Codes

The *Wildcat!* codes for system and user variables can be easily added to a file. Press [F8] to pop up a list of available @Codes. Codes are grouped by function, and each code is followed by a brief description.

To place an @Code on your screen, position the cursor at the location you want the expanded text to appear. Then press [F8] and select the desired code from the window:

Codes are placed at the cursor position and are always inserted, regardless of the status of the editor (insert or overtype mode). When placing @Codes remember that the actual text may be much longer than the code when it is expanded. Use the SIMULATE mode to check the display and the [ALT] [P] PLACEMENT option to place @Code information inside boxes.

Simulating display (preview mode)

The SIMULATE mode in *wcDRAW* lets you look at your display files just as they will appear to a caller. Simulation replaces @Codes with sample text and inserts -Continue- commands in the exact same manner as *Wildcat!*. Press [F9] to "Preview" your file.

There are several options during simulation that can be set from the SIMULATE option menu by pressing [ALT] [F9]. The following window of choices is displayed:

Command	Notes
Set page length	Changes the page length set by the caller for the simulation. The -Continue- prompt will appear at the corresponding location in the file.
Typical sample data	Replaces @ codes with average-length text and user information with fictitious user names.
Expanded sample data	Replaces user-specific @Codes with text of the maximum length possible. Helps you make sure that the longest name (or other info) won't wrap past the right margin or push other text to an inappropriate position.

Preview options take effect immediately and remain in effect until changed.

Deleting files

You can delete files from the editor or from the file selection list. From the editor press [ALT] [D]. From a selection list, press [DEL]. If than one .BBS, .SCR or .RIP file exists then you will be further prompted as to which file you want to delete.

Command reference

Key	Action
F1	Context-sensitive help.
F2	Select active color.
F3	Toggle from Mark-block to Text mode.
F4	Paint block with active color.
ALT F4	Selective paint options.
F5	Toggle line drawing.
ALT F5	Select line drawing mode.
F6	Select NumLock key sets.
F7	ASCII table; ASCII fill character in block mode.
ALT F7	Selective character change.
F8	@Code table.
F9	Simulate mode.
ALT F9	Simulate options.
F10	Save file.
ALT A	Select .SCR version of file for edit.
ALT C	Copy block to clipboard.
ALT D	Delete file in editor.
ALT R	Read file into editor.
ALT U	Use current color for active color.
ALT V	Paste clipboard to screen for positioning.

Special Display File codes

You can find a complete list of display file names, @ macros, color codes and other display file information in Chapter 8, Reference.

The following tables show some of the more specialized @ macros, along with examples.

Macro	Notes
@NOSTOP@	This @Code is embedded in a file to turn off the user's ability to view less than the full display file on screen. The user receives the appropriate page pauses, but the Stop option is not available. Place @NOSTOP@ at the beginning of the file if you want it to affect the entire contents. The SPACE is disabled for stopping the screen while @NOSTOP@ is in effect.
@STOP@	Both @NOSTOP@ and @NOPAUSE@ are automatically canceled at the end of a display file, and need not be turned off unless you want the option to change back. Some of these variables are updated during a call in the event of a dropped carrier.

Several @Code constructs allow creation of one display file that actually sends different messages, depending on security profile. The three constructs are:

Macro	Notes
@IFSEC=Profile@	This is the first part of a conditional transmission of text to the user. This @Code specifies that the text on the following lines should be sent *only* if the user's security profile is equal to the profile name following the equal sign. All text is displayed until an @ELSE@ or an @ENDIF@ is encountered.
@ELSE@	This part of the conditional transmission of text is only used if the condition above was not met. In such a case the text following this @Code should be displayed instead. All text is displayed until an @ENDIF@ is encountered.

Macro	Notes
@ENDIF@	This ends the conditional transmission of text and normal transmission should proceed.

These constructs are not activated in Menus, only Display Files. Here is a valid HELLO#.BBS display file:

```
@IFSEC=NEWUSER@
    Hello @FIRST@, your security level is NEWUSER which
    allows you only a small number of menu options.
@ENDIF@
@IFSEC=FULLUSER@
    Hello @FIRST@, your security level is FULLUSER
    which allows you to all menu options except the
    Sysop's.
@ENDIF@
@IFSEC=SYSOP@
    Hello @FIRST@, your security level is SYSOP and you
    can do pretty much anything you like here.
@ENDIF@
   This text is sent to ALL levels
```

All conditional @Codes must be in upper case and start at the first screen column on the left. They must be on their own line, and cannot have any other @Codes or text on the same line. You cannot nest levels of IFSEC= constructs. The following is *not* valid:

```
@IFSEC=NEWUSER@
  ... text goes here
@ELSE@
  ... more text
@IFSEC=FULLUSER@
  ... still more text
@ELSE@
@IFSEC=SYSOP@
  ... yet more text
@ENDIF@
@ENDIF@
@ENDIF@
```

These are very powerful functions when properly implemented and will provide additional enjoyment and assistance to your callers.

ANSI editors

To create .SCR files, you need an ANSI editor such as THEDRAW. You can also use a plain text editor if it is capable of placing the ANSI escape character in the text.

An ANSI editor gives you several options when saving your file to disk. You should select line lengths as long as possible, up to the maximum or 255 characters, and no clear screen.

One of the most common problems arises as a result of creating a display file that is too long and gets a "-Continue-" prompt in the middle. This happens because almost all ANSI screens are saved as 25 lines, to fill a normal 25-line monitor.

This problem has a simple solution. After creating the file in THEDRAW, you can carefully edit it in a plain text editor such as QEdit. Set the margins in your editor to 0 for the left and 255 for the right. THEDRAW places ANSI cursor location codes at the end of the file to move the cursor to line 25, column 1. These are the codes you need to remove.

Move the cursor to the bottom line of the file and then past the last character on the end of the line. Once there look to the left and locate the last printable character you actually want to display to the caller. If your display file is composed of a message in a double-line border, this would be the lower right corner of the border. Place the cursor to the right of this last printable character and delete the rest of the line.

The characters to be deleted will include ESC codes followed by square brackets, numbers and letters. When you have deleted the necessary characters, press [ENTER] immediately after the last printable character to start a new line. Your file should now display properly.

Whenever you re-edit a color file you must use your editor to check your embedded codes and to delete the extra codes at the end of the file.

Some display files just stop and won't start up again. What could cause this?

You probably have upgraded from a Test Drive version *Wildcat!* and still have some of the old style control codes in your display files. In particular the old ^S^P that was used to force a -more- prompt can cause this problem. With these control codes, your caller's communication software may be interpreting the ^S as an XOFF character and stopping the display until the caller sends a ^Q XON. The solution is to simply remove the old codes.

RIP

RIPscrip is a text based Script language for displaying on-line graphics and allowing a caller to make selections using a mouse. The script language uses 7-bit ASCII to avoid the use of Extended ASCII characters, and allows transmission over networks that do not support full 8-bit binary transfers easily. RIPscrip allows RIPscrip graphical statements to be mixed with printable ASCII text, ANSI and *Wildcat!* @Codes. RIPscrip can dynamically determine what is graphics and what is text and display them appropriately in separate windows (a graphics window and a text window).

To send graphics effectively across a phone line there must be a protocol that can send a description of a picture to a caller's terminal program. RIPscrip does that by representing graphics with a series of commands for drawing circles, lines, boxes, fills, and so on.

The RIPscrip Graphics Protocol Specification as supported in MSI products is Copyright © 1992-1994, TeleGrafix Corporation and is written by Jeff Reeder and Mark Hayton.

Requirements

If you want to offer RIP graphics to callers, you must create appropriate RIPscrip display files and put them in the appropriate menu, help, display and bulletin paths. We have included a sample set of RIPscrip display files

and a special RIP prompt file that references many of these RIP display files with *Wildcat!*, but some may require modification prior to use for your BBS.

You need to learn at least the basics of the RIPscrip command language and RIPaint or other RIP design program. Refer to the documentation with your RIP screen editing program for help with creating and modifying RIP display files.

To receive RIPscrip graphics, callers must call your BBS using a terminal program capable of interpreting RIPscrip commands. Three such programs are RIPterm from TeleGrafix Corporation, *QmodemPro* for Windows and *QmodemPro* for DOS.

Auto-detection

Wildcat! can auto-detect when a caller is using a RIP-capable terminal program immediately after connection, as long as the terminal program also supports RIP detection. This auto-detection works with v1.5.0 and later of RIPterm and with the DOS and Windows versions of *QmodemPro*.

Note — If a caller is using a RIP-capable terminal he must have his user record set to RIP or Auto-detect. Remember however that if a caller is NOT using a RIP-capable terminal but DOES have RIP set in his user record he will receive RIPscrip commands that will not be interpreted by his terminal program. The RIP commands will appear as meaningless letters, numbers and symbols.

Screen Display

When RIP display and menu files are being sent to a caller, the display on the Sysop screen shows the raw RIPscrip commands and does not interpret the scripts or display them in graphic format. This handling of RIPscrip allows *Wildcat!* to continue to offer full-speed operation and support for multitasking operations. The Sysop status line shows the name of the last display file sent to the caller for reference.

Example RIP commands

For complete information on RIPscrip programming, you should consult the documentation with your RIP screen editing program. Here, however, is a short example of an actual RIP display file that shows a variety of RIP functions. First, the file itself:

```
^L
!|1K
!|*
!|w0010271610
!|Y00000100
!|1B00000201DU030F000F080700000F07000000
!|1U0Y0Y8T2K2000<>HELP\!<>H^M
!|c0F
!|W00
!|=00000001
!|@2L2SThis is a RIP Button
!|1M010W368S421000000G^M
!|@2M4AThis is a RIP Mouse Region
!|1I104U000103&HALF1
!|@365RThis is a RIP Icon
!|R1K6T7F7J
!|@2G7OHere is a RIP Rectangle
!|CCR251P
!|@BN3PHere is a Circle
!|Y01000300
!|@AB4UAnd a different size
!|@AB5Jfont.
!|#|#|#
```

And an explanation of each command in the file:

`^L`	Clears the screen with a Control-L
`!|1K`	Kills all current mouse fields
`!|*`	Reset all graphic and text windows
`!|w0010271610`	Sets a text window
`!|Y00000100`	Sets the font style
`!|1B00000201DU030F000F080700000F07000000`	This command sets the button style

`!|1U0Y0Y8T2K2000<>HELP\!<>H^M`	This is the actual button
`!|c0F`	Sets the color to White.
`!|W00`	Sets the drawing mode.
`!|=00000001`	Sets the line style.
`!|@2L2SThis is a RIP Button`	This is how you display text
`!|1M010W368S421000000G^M`	Defines a mouse region
`!|@2M4AThis is a RIP Mouse Region`	Display more text
`!|1I104U000103&HALF1.ICN This is an icon`	
`!|@365RThis is a RIP Icon`	More Text
`!|R1K6T7F7J`	This defines a Rectangle
`!|@2G7OHere is a RIP Rectangle`	More Text
`!|CCR251P`	Defines a circle
`!|@BN3PHere is a Circle`	More Text
`!|Y01000300`	Defines a new font style with font size.
`!|@AB4UAnd a different size`	
`!|@AB5Jfont.`	Displays two more lines of text.
`|#|#|#`	The RIP NO MORE command

File creation tips

One of the common types of RIPscrip files is a full-screen graphic that allows the caller to make a screen selection. The RIPscrip code for a full graphic .RIP menu file might look something like this:

```
LIST        1       22      04-28-94 17:28 ♦ MSI5.RIP
!|1K|*|w0010271610|W00|=00000001|S010D|B0020HR2W|S0109|B0034HR3C|S010A
!|B003KHR3S|S010E|B0040HR48|S010C|B004GHR40|S0100|B0K2G604W|BAA2GGE4W|c0F|S0105
!|B60206Y2W|BGE20G02W|S0101|B60346Y3C|BGE34G03C|S0102|B603K6Y3S|BGE3KG03S|S0106
!|B60406Y48|BGE40G048|S0104|B604G6Y40|BGE4GG040|R0K2G604W|RAA2GGE4W|S0100
!|B0K60GE6G|R0K60GE6G|1B00000200M8030E000F080700000F07000000|Y01000500
!|1U0K08GE1C0000<>Mustang Software Services<>|Y00000100|@0066Conference:
!|@8W66Time Remaining|c0C|@CG66@LEFT@|@3C66@CONF@|c0F
!|1B00000300LC030F070F080700000F07000000|1U0U20142W0000<>Previous Menu
!|1U0U34143C0000<>Demonstration Menus<>|1U0U3K143S0000<>Bulletin Menu
!|1U0U4G14400000<>MSI Support Net Menu<>|1UAK20AU2W0000<>Fax Back Services
!|1UAK34AU3C0000<>wcCODE Example Menu<>|1UAK3KAU3S0000<>Enter BBS List
!|1UAK4GAU400000<>Goodbye & Logoff<>|1M000U2060 2W1100000P^M
!|1M070U34603C1100000D^M|1M010U3K603S1100000B^M|1M040U4G6040110000 0S^M
!|1M0AAK20GE2W1100000X^M|1M05AK34GE3C1100000W^M|1M0BAK3KGE3S1100000E^M
!|1M06AK4GGE401100000G^M|B0K60607S|BAA60GE7S|R0K60607S|RAA60GE7S
!|1B00000 30PVK030F070F080700000F07000000|1U0N6R2370 0000<><>
!|1B00000300LC020F070F080700000F07000000|1UAD6RC97R0000<><>|c00|Y01000100
!|@0R60Test|@0R74Drive|c0E|@0Q6NTest|@0Q73Drive|1IAE6R00110BUISA.ICN|c0F
!|Y00000100|@2I6WWildcat & Qmodem|@2I74Test Drive Menu|@CI6WOrder Mustang
!|@CI74Software Products|1M080K60607S1100000*^M|1M09AA60GE7S11000000^M|#|#|#

Command►     *** End-of-file ***          Keys: ↑↓→← PgUp PgDn F10=exit F1=Help
```

Fortunately you don't have to know these commands to create RIP screens. Your RIP screen editing program does much of the work for you and displays your creations in full graphics for editing. However, you do need to learn some RIPscrip code to create well integrated text and graphic screens.

Mixing text and graphics

If you want to display text inside a graphic border, you must create a .RIP version of the file that defines the graphic border, and the area inside the border to contain the text. Any display file called from a graphic menu

with no text window defined will not display unless it defines a text window of its own!

Almost all the sample .RIP files included with *Wildcat!* contain a series of RIP commands to set up a graphic with a 80x25 text window using the MicroANSI font. The RIP code necessary to do so is very small and is simply attached at the beginning of the standard .BBS file to turn it into a BULLETIN.RIP file.

When a caller makes a menu choice, *Wildcat!* either sends a display file (a RIP version if it exists), or sends the text of the command, or it displays a prompt. A .RIP version of the display file should clear the menu graphic and create its own text window, if needed. There is often no text window defined on a graphic menu to receive text from a subsequent menu choice.

POSTRIP.RIP

If a RIP file is not available, *Wildcat!* sends a special file called POSTRIP.RIP to clear the screen, create a text window and set a text font, then sends the .SCR or the .BBS version of the display file.

There are only two exceptions to this rule. The menu choices for DOORS and MENU HOOKS are always preceded by POSTRIP.RIP to ensure that a text screen is established. Your display file DOORS.RIP will be sent after POSTRIP.RIP if it exists, but does not need to clear the screen or establish a text window. In fact, if your DOORS.RIP file does start with a RIP clear the screen command the caller will see POSTRIP.RIP for a split second followed by its replacement with DOORS.RIP.

Note that standard doors can be run in RIP mode since the ASCII/ANSI door text is sent to the caller and will be displayed on the screen in the text window defined by the last RIP command.

Customizing .RIP Files

There are several RIPscrip commands that you need to be able to recognize to be able to edit your RIPscrip files manually. The following list of

commands are presented without the ! or | symbols for clarity. Remember that in a RIPscrip each must be preceded by | and the line must begin with a !.

Command	Action
*	Clears all graphic and text screens.
w####	Text window command with location
B#### (or 1B)	Button definition command
U#### (or 1U)	Button draw command

The file RIPSCRIP.DOC, supplied with RIPaint, contains a complete list of RIPscrip commands.

How to avoid displaying text information over graphics, and pace files properly

Keep in mind the order in which files will be displayed. For example, if you intend to have several full-graphic HELLO#.RIP files you need to let the caller indicate when he has finished viewing the first file and wants to go on to the second. To do this, create HELLO1.RIP with a "Continue" button at the bottom of the screen. Set the button to send the character C followed by ENTER (CTRL M, indicated by ^M). Once the file is saved you need to edit it (you can use *wcDRAW*) to place an @PAUSE@ command immediately after the button draw command. The last few lines of your file should look something like this:

```
...
!|1B00000201DY0301000F080700000F07000000|Y00000100
!|1U6A87AE8P0000<>Continue<>C^M
```

Add the @PAUSE@ on the line after the button draw command:

```
...
!|1B00000201DY0301000F080700000F07000000|Y00000100
!|1U6A87AE8P0000<>Continue<>C^M
@PAUSE@
```

For your last hello file (or if HELLO1.RIP is the only one you have) you should use RIPaint to put a text window at the end so there is a place to display the prompts that follow. In this case your HELLO#.RIP file might look something like this:

```
...
!|1B00000201DY0301000F080700000F07000000|Y00000100
!|1U6A87AE8P0000<>Continue<>C^M
@PAUSE@
!|w03002A1211|#|#|#
```

Notice the !|w command to set up a text window is located after the @PAUSE@ command and the "Continue" button. In this example you should insert the @PAUSE@ prompt after the button but before the window command. In Addition, you should add a RIP command to clear the screen (|*). We've combined both the clear screen and window commands in our example:

```
...
!|1B00000201DY0301000F080700000F07000000|Y00000100
!|1U6A87AE8P0000<>Continue<>C^M
@PAUSE@
!|*|w03002A1211|#|#|#
```

When this revised file is read from the disk, *Wildcat!* sends the graphics up to the point of the button, then it pauses because of the @PAUSE@. The caller gets the entire graphic screen including the button labeled "Continue", and *Wildcat!* waits until the caller sends a command to start again by clicking the button (or pressing [C], [S] or [N] for continue, stop or nonstop). When the caller clicks the button, *Wildcat!* receives the sequence [C] [CTRL] [M] (C followed by ENTER) which tells *Wildcat!* to send the rest of the file. The screen is cleared of graphics and a text window is established.

How to add mouse-sensitive screen regions to display files.

It's fairly easy to create a screen that allows a caller to use the mouse to click on text areas to make selections. This is a fairly simple process once you learn the RIPscrip commands for mouse regions.

The Bulletin Menu is a good example of a screen where you may want a caller to be able to select a bulletin by clicking on the menu text (not the graphics) with a mouse. To do so you must add codes to the BULLETIN.RIP display file text indicating where the mouse region starts and ends. The syntax used to define a mouse region for RIPscrip is as follows:

```
^R#<char>.....^R
```

or

```
^S#<char>.....^S
```

The difference between these two control characters is that ^R sends a carriage return after the character and ^S does not. This difference is important since callers with hot-keys turned on do not want a carriage return sent after some keystrokes.

Rather than burden you with choosing the correct control character (^R or ^S), *Wildcat!* can make the decision for you. However, in order to do so you must use a different control character when creating RIP files, one that *Wildcat!* can recognize and then substitute the appropriate RIPscrip control character.

We have chosen ^T as the substitute character, and it follows the same syntax:

```
^T#<char>.....^T
```

The ^T is the ASCII 20 character (it looks like a paragraph marker), the # is the number of characters to be sent when the region is clicked and the <char> represents the characters to send to the host. The .... is the actual text of the BBS prompt that represents the mouse region.

You cannot enter control characters directly in most editors. Try entering it from the keyboard (press the [ALT] key and type [2][0] on the numeric keypad). If that doesn't work, try typing [CTRL][P][CTRL][T]. The [CTRL][P] command in many editors means "interpret the next control character as literal text."

The following text prompts can be made mouse-sensitive:

(before)

```
[15] - This is Bulletin number fifteen.
```

(after)

```
^T215[15] - This is Bulletin number fifteen.^T
```

The characters immediately after the ^T indicate that there are 2 character to be sent and that the characters to be sent are 15. The entire text is a mouse region. The ^T characters and the numbers 215 are NOT displayed on the caller's screen.

You can even create display files using text instead of graphics by simply modifying your standard display files to create .RIP versions. We have included standard ANSI menus with this type of conversion. The following is an example for part of a Main Menu with mouse regions added:

```
^T1MMessage Menu^T     ^T1HHelp Level^T

^T1CComments^R  ^T1NNewsletter^T
```

How to add an icon to a display file.

Unlike a standard .RIP file that sends the caller all the information necessary to draw your graphic, a file with an icon in it simply tells the caller's terminal program to display the icon on his screen at a specified position. It assumes the caller already has the icon your .RIP file references. If the icon is missing, it is replaced with a dotted line indicating the icon wasn't found.

Icons are useful for creating fancy complex screens, so long as you make the icons available for callers to download. The creation of icons is discussed in the documentation with RIPaint. There are also several conversion programs to create icons form other bitmapped file types in the RIPaint product.

Internal Prompts

Each prompt file contains both RIP and ASCII prompts You can edit the prompt file with the utility program *wcPROMPT*, discussed later in this section. Be careful when editing RIP prompts, and only undertake these modifications if you are comfortable with your RIP editing capabilities.

RIPscrip Contact Information

For more information on RIPaint, RIPterm or RIPscrip development tools, contact TeleGrafix Corporation at (714) 846-4179. Additional RIP editing programs from other vendors are available for download from MSI HQ BBS.

Creating a Quote of the Day file

QUOTES.BBS is different from other display files, so some additional explanation is in order. Extracts from this file are displayed automatically to the caller during the logon process if QUOTES.BBS exists in the conference 0 display file path. A sample QUOTES.BBS file is included with *Wildcat!*. To disable the Quote of the Day feature, simply delete QUOTES.BBS from your conference 0 display file path.

You can create your own QUOTES.BBS file with *wcDRAW* or a text editor, and it can be any length. The first entry must begin on the first line of the file. A particular quote may contain any number of lines, with each quote separated from the next by two consecutive carriage returns, created by pressing [ENTER] twice. Here is an example of a QUOTES.BBS file:

```
This line is quote no. 1 [ENTER]
[ENTER]
These lines are quote #2, and regardless of [ENTER]
the length of the lines [ENTER]
would be displayed until [ENTER]
two consecutive carriage [ENTER]
returns are encountered. [ENTER]
[ENTER]
This is quote number 3. [ENTER]
[ENTER]
```

And so on for the length of the file.

When *Wildcat!* is run for the first time, it initializes a pointer to the first record in QUOTES.BBS. Thereafter, during each new logon, the user sees the next sequential quote in the file. In other words, if your board receives 50 calls a day, and you have 50 different quotes in QUOTES.BBS, each caller would receive a different quote. Starting with the 51st caller, the file would recycle to the first quote in the file.

Adding music to display files

You may even want to add "music" to your ANSI display files, for your callers using *QmodemPro* or another communications program capable of interpreting the ANSI "music" characters. Music will be generated on the PC's speaker only if the following conditions are met:

1. *QmodemPro* is configured for ANSI terminal emulation
2. *QmodemPro*'s Music Toggle is ON
3. *QmodemPro* receives encoded music data.

To be recognized by *QmodemPro*, encoded music data must conform to the following format:

```
ESC [M ........ music codes ........ ^N
```

A good manual on the modern BASIC language should contain further information on the PLAY statement. Music strings must end with the CTRL N (^N) character. If the ^N character is missing, it is assumed by *QmodemPro* that the following text, up to 255 characters, is playable music.

Menus

Since its earliest releases *Wildcat!* has used a traditional tree-structured menu system: the main menu branches to file, message and Sysop menus. Within that traditional menu structure, you could change the wording of any menu command, and the letter that executes the command, but it was not possible until *Wildcat!* version 4 to move commands from one menu to another, or to create new menus entirely.

MAKEMENU gives you complete control over your BBS menus.

- You can add commands to any menu, create new menus for additional commands, or put all your BBS commands on a single menu if you like.
- You can provide shortcuts to commonly-used functions by stacking commands — for instance "read unread personal mail in selected conferences", or "list new files for the last 2 days, mark them all, then download the marked files".
- You can attach a display file to any menu command.
- You can launch programs from a menu command, either DOS applications, or *wcCODE* programs.

Modifying the default menus

If you installed the menus and sample configuration during the initial installation of *Wildcat!*, the installation program for *Wildcat!* will have copied a definition file of standard, tree-structured menus to your LANGUAGE directory. This is the menu file *Wildcat!* uses to determine which commands and menus are available to each security profile, and which menu display files, if any, to show to callers.

It's important to remember the relationship between the internally-generated or "dynamic" menus you create with *MAKEMENU*, and the optional menu display files you create with *wcDRAW*. Changes made to one must also be made to the other, if your changes are to have any effect.

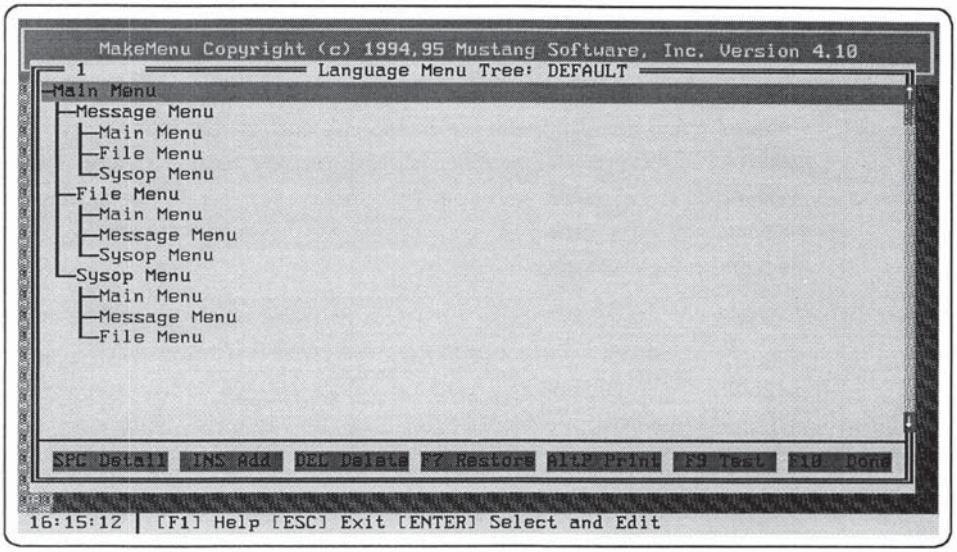
This means that if, for instance, you want to add a menu hook to the main menu that launches a database program, and you use menu display files instead of *Wildcat!'s* dynamic menus, you must add the command to your internal menu definition with *MAKEMENU, and* to your menu display files with *wcDRAW*. If you modify only the display files, *Wildcat!* has no command to associate with your new menu selection. If you modify only the internal menu definition, your callers will never see the new menu selection on the menu display file.

To make it easier to modify both sets of menus as you work, you can launch *wcDRAW* from a button on *MAKEMENU's* menu editing screen. *wcDRAW* will automatically load the display file you have associated with the menu you are currently editing.

If no display file currently exists, *wcDRAW* will load a copy of the dynamic menu for the security profile you select. Remember that each security profile and each conference can have its own set of menu files.

Using *MAKEMENU*

Always run *MAKEMENU* from your *Wildcat!* home directory. If you have no other languages defined in *MAKEWILD*, *MAKEMENU* will display the following screen. Otherwise it will prompt you to select the language to edit.



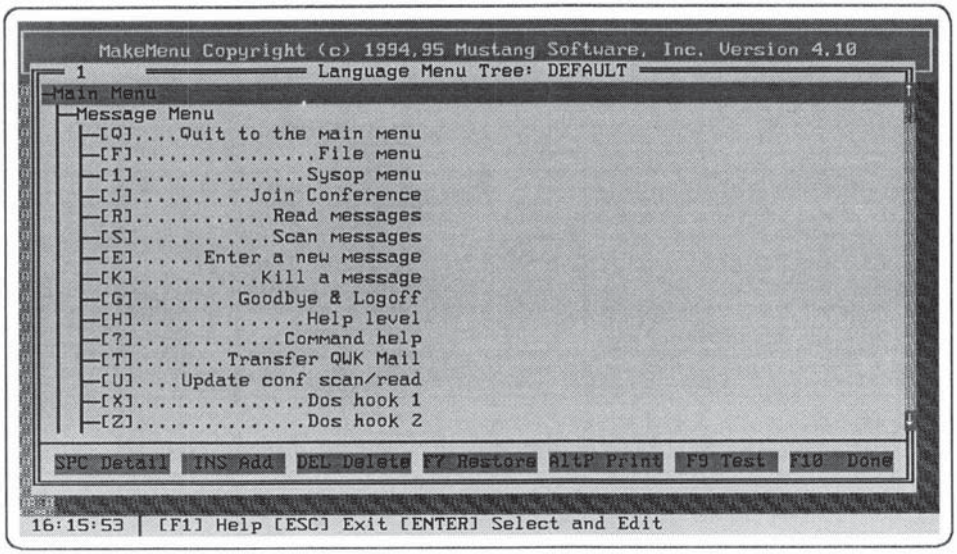
Notice the lines linking each menu. The main menu is at the top of the screen, with a line leading outside. This is where a caller first comes into the BBS.

You can see two more levels of the tree in this illustration — although you can have many more levels if you want. The first level, linked directly to the Main menu, contains the Message, File and Sysop menus. Below them, are second level menus, and so on.

Why are some menu names shown in a different color?

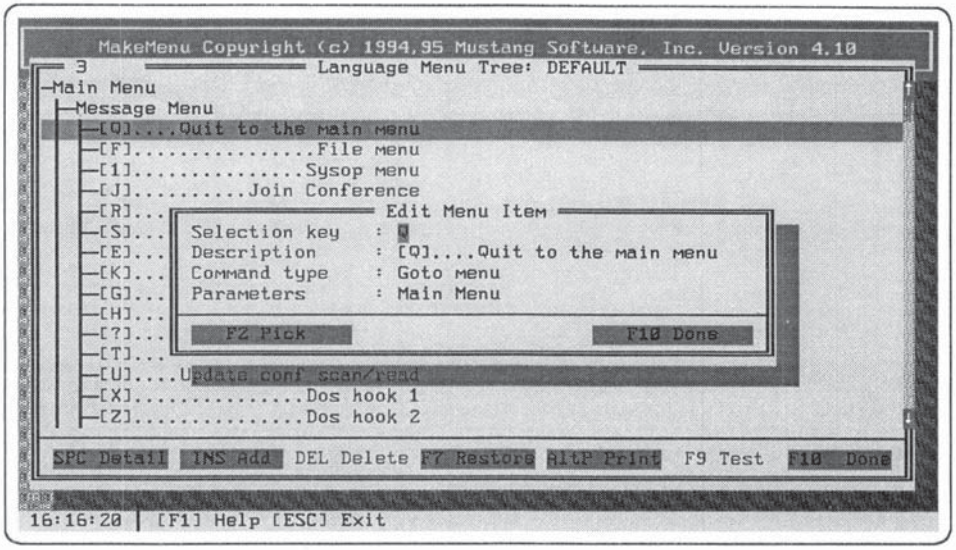
Some menu names are shown in blue on a color monitor, or highlighted on a monochrome screen. These are *links* to other menus you have already defined. Other menu names are shown in white, and these are the menus you can edit.

Now press the SPACE key and notice how the display changes.



This is the "Detail" view, and shows the menu commands for each menu. Notice that the menu commands are colored blue on a color monitor, while the menu names and the lines linking each menu name are colored white. Use the PG UP and PG DN keys to move around the screen to see the relationship between menu commands, menu names, and menu tree.

Notice that when you move the highlight to a particular menu command and press ENTER, you can edit the characteristics of that command.



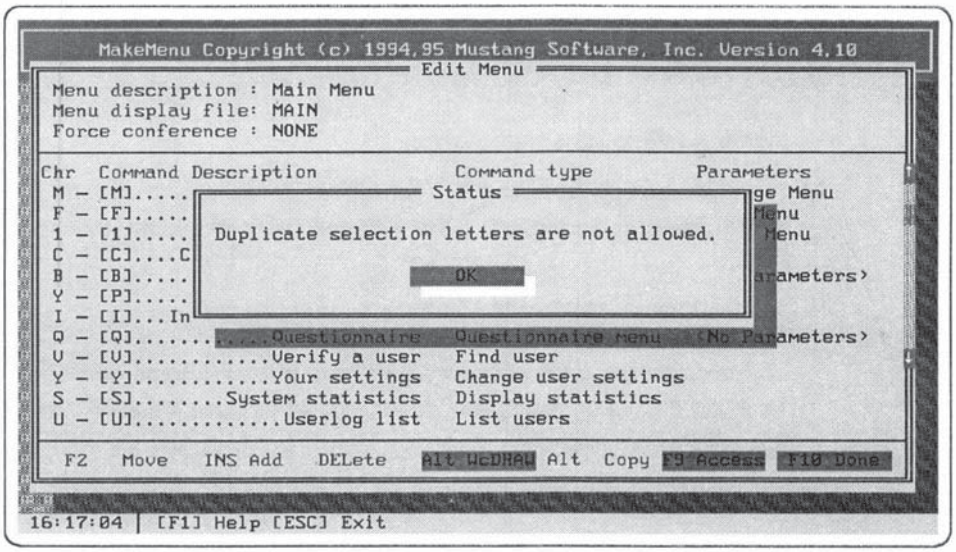
When you move the highlight to a menu name and press ENTER, you can edit the entire menu. We'll talk more about that later in this section. First though, we'll start with something simple: changing the characteristics of a menu command.

Changing the selection key

Let's say you want to change the wording of the main menu command "Page the Sysop" to "Yell for the Sysop", and you want to change the command letter from "P" for "Page" to "Y" for "Yell". Press the SPACE to display the menu structure and locate the main menu command

```
[P]............Page the Sysop
```

Move the highlight bar to this line and press ENTER to pop up the "Edit Menu Item" box. Enter a new "Selection Key" of "Y" for the "Yell..." command and save your work with the F10 key, then try to exit the current screen with the F10 key. The program will pop up an information message like this:



How can I see what selection keys are available?

While in the "Edit menu item" box you can press F2 to pop up a list of available keys. Notice that available keys are bright white, while unavailable keys are grayed out and can't be selected. Move the highlight around the list to choose an unused letter, and press ENTER to select it.

Press F10 to save it temporarily, then go back to the "Page the Sysop" command to complete the changes. You'll now be able to select Y as the selection key for "Yell for the Sysop".

Changing the description

Now move the highlight to "Description" and begin typing. You can use standard WordStar-style editing keys in this field — see Chapter 8, *Quick Reference* for a command reference.

Change

```
[P]...........Page the Sysop
```

to

```
[Y].......Yell for the Sysop
```

then press F10 to save your change.

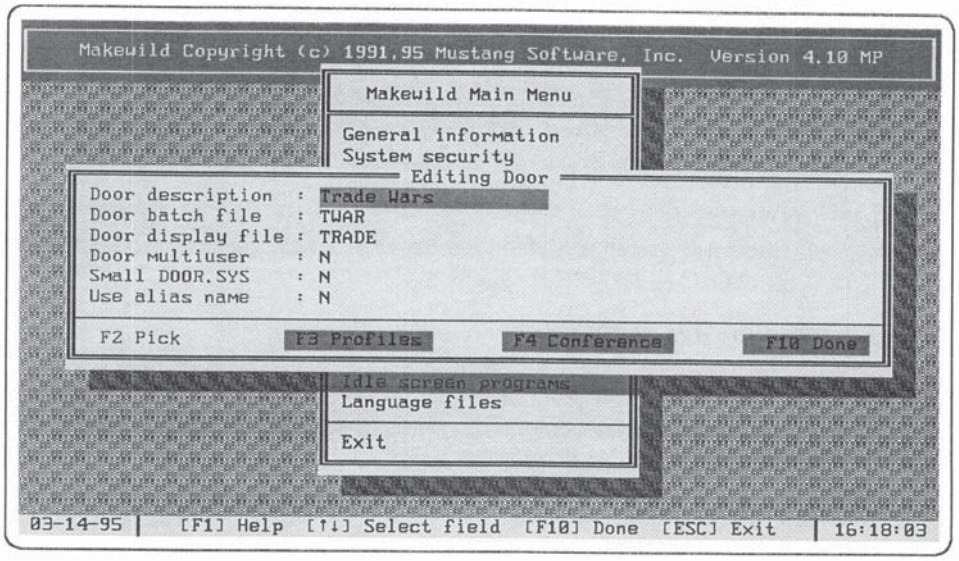
Now you can go back to the "Your settings" command to change the selection key and description. Since the letter "A" is available, try changing it to

```
[A].....Adjust your settings
```

The selection key does not necessarily have to be the same as the first letter in the prompt or description, so long as it has some mnemonic association with the command.

Adding doors and menu hooks

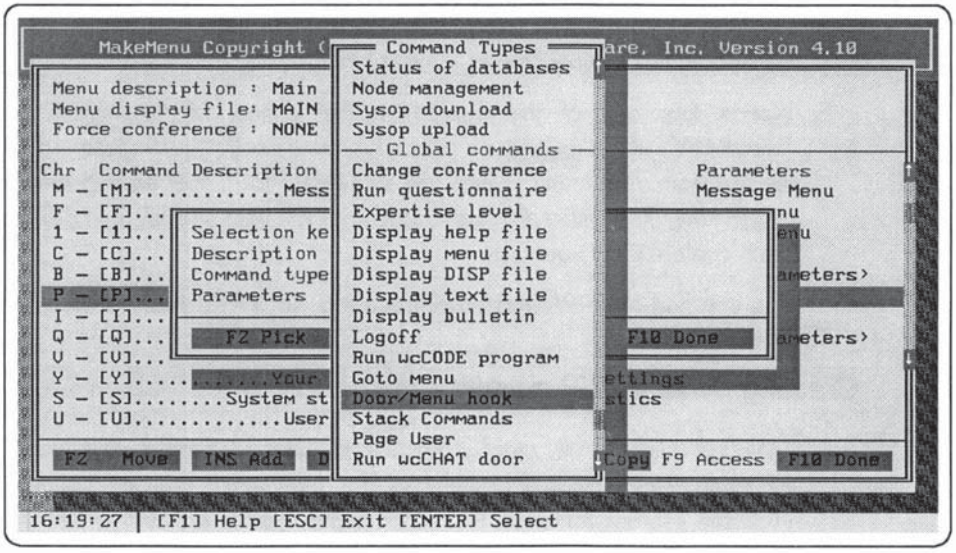
To add doors and menu hooks to your menus, you first need to add them to *MAKEWILD* from the "Doors" and "Menu Hooks" sections.



Doors add themselves to the door menu automatically, while you must add menu hooks to the menus from *MAKEMENU*.

To add a menu hook, start *MAKEMENU* and select the menu on which you'd like to add the hook. Press ENTER to pop up the menu editing screen, then press INS to add a menu item. Press F2 to select an unused selection key, then type in the description.

Your next option is Command Type. Press F2 to pop up a selection list.



Use the mouse or PG UP and PG DN keys to move around the selection list. You'll find Door/Menu hook near the bottom of the list, under "Global commands". Select it and press ENTER.

The next option is Parameters. Press F2 to pop up a selection list. If the list is empty, you'll need to go back to *MAKEWILD* and add the doors and menu hooks before continuing. Press F10 to save your new menu hook command.

Creating menu display files

Although *Wildcat!* will automatically create and display "dynamic" menus to callers showing all the valid selections they can make, you may prefer to replace these dynamic menus with ones of your own design. To create a custom menu screen, select the menu you want to create from the menu tree window and press [ENTER].

Fill in the "Menu display file" field with the name of the menu display file you want to associate with this menu. File names can be up to 7 characters long — this is to accommodate the "menu display set" character you defined under Security Profiles in *MAKEWILD*.

Notice that one of the buttons at the bottom of the screen says "*wcDRAW*". Press [ALT] [W] or select this button with your mouse, to load the text from your menu screen into *wcDRAW* for further editing and embellishment. Remember that you can have different sets of menu files for each conference if you wish.

You can find more information about using *wcDRAW* near the beginning of this chapter.

Creating dynamic RIP menus

Wildcat! automatically creates dynamic RIP menus where a corresponding RIP menu display file is not available. The dynamic RIP menus have mouse-clickable regions for each menu command, displayed over a graphical background file if it exists.

The background file should be located in your conference menu path, with the name of the corresponding menu as the file name, and .RMB as the extension. For instance, the background file for a menu called MAIN would be MAIN.RMB.

You can use any RIP screen editor to create the background file — see the section on creating RIP screens in this chapter starting on page 384.

Creating your own custom menus

So far, we've shown you how to make minor modifications to the basic menu structure — changing a selection key and description, and adding a menu hook or door to your menus. Now we'll tackle some more complex tasks, including a completely customized menu system.

Planning a menu structure

Before you begin, take some time to plan out the menu structure you want to define. You may find it useful to define your menu on paper or on your screen with flow-chart tools, so that you can see the relationship between menus.

Organization

When you create custom menus for your BBS, you would normally want to make it easy for your callers to find the command they want. On a private system where callers will only be dialing in to send or receive a file, it would be reasonable to create a single main menu with commands such as upload, list and download.

Likewise, on a BBS which serves mainly as a network e-mail gateway, a single menu with read and enter message commands would be logical, and easy for your callers to navigate.

A BBS for a PC user group, on the other hand, might have submenus from which a caller can view a schedule of upcoming club events, or automatically download a membership application and a selection of useful shareware utilities, plus a command for an order-entry questionnaire that will accept credit card payments to renew a caller's membership in the user group.

Security

It's important to understand that in order for a caller to be able to see and execute a menu command, you have to set access to the commands *and* the menus. You assign security for menu *commands* in *MAKEWILD*, under

Security Profile definition. You assign security for *menus* themselves in *MAKEMENU*.

Access for menu *commands* is global — that is, if a security profile has access to the "join conference" command, for instance, callers with that security profile will have access to the command in every menu in which it appears, providing the caller has access to the menu itself. The only time this is likely to be a problem is with menu commands that have a number of possible parameters: Run *wcCODE* program and Door/menu hook for instance.

If you give a security profile access to one of these commands, the caller will be able to see and execute it if he has access to the menu the command is attached to. There are a few ways to limit access to some of these commands for security profiles, while still allowing others to be executed.

For *wcCODE* programs, you can check the caller's security profile and return him to the menu if his security profile isn't allowed to execute the command. For doors and menu hooks, you can check the caller's security in DOOR.SYS or USERREC.BIN, and return the caller to the BBS.

Neither of these options may be suitable if you only want the caller to see menu selections he actually has access to. The best way to "filter" security-specific commands is to create a copy of the menu for each level of security.

Each menu you add will appear on the selection list for the "Add" button. To create a copy of your message menu, for example, use the "Add" button or the [INS] key. On the "Menu Samples" selection list, move the highlight down to the "Your Defined Menus" section, and select "Message Menu", then press [ENTER].

This creates a copy of your message menu, so you can edit, add or remove commands. Press [F9] for "Access", and set the security profiles that should have access to this special version of your message menu.

You can define multiple "root" menus that branch to different sub-menus, depending on security profile. *Wildcat!* will place a caller in the first "root" menu his security profile has access to.

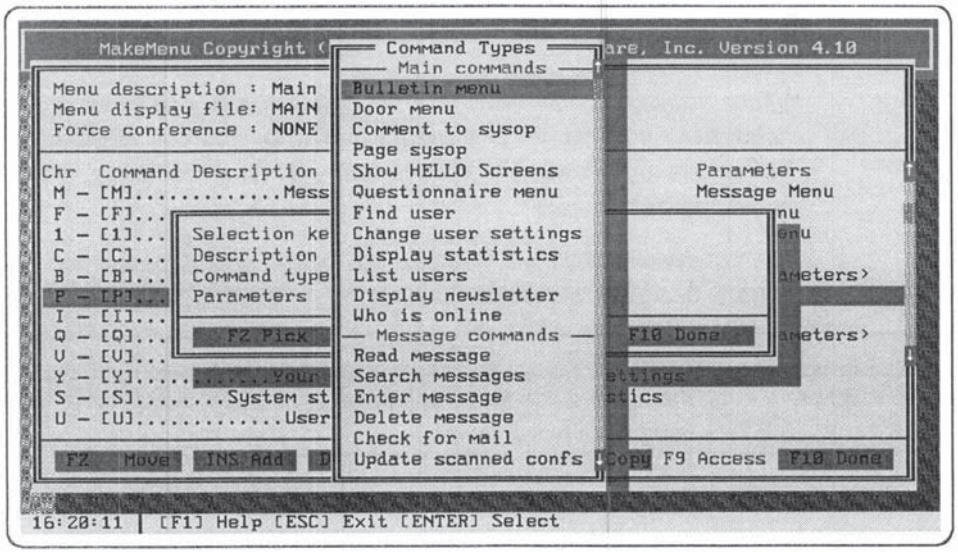
Adding a new menu

When you add a new menu with the INS key, you can select a predefined menu from the list of standard menus, or you can select a menu you've already added. Or you can start with an empty menu, and add commands to it yourself.

The Edit Menu screen will then pop up. Here is a brief description of the fields in the top of this window:

Field	Description
Menu description	The name of the menu as it appears in the language menu tree, and on dynamic menus.
Menu display file	The name of the custom menu file that replaces the dynamic menus.
Force conference	Leave this blank if you want this menu to be available in all conferences. Fill in a conference number if you want callers who select this menu to change automatically to the one you select.

Adding commands to your menu



You add commands to your menu by picking them from a selection list. Press INS to see the list of available commands.

Field	Description
Selection key	The letter the caller presses to execute the menu command.
Description	This command description will appear on *Wildcat!*'s dynamic menu.
Command type	The type of command to execute as explained in the table below.
Parameters	The command option to execute as explained in the table below.

Changing the order of menu commands

You can rearrange the order of commands on your menu by selecting and moving individual commands. To move a command, highlight it and press F2. The selection will change color, and you can then move it up or down in the list with the arrow keys. When you are satisfied with the new position of your command, press ENTER.

Stacked commands

You can make a single menu command perform the work of two or more other menu commands by stacking. For instance, you can offer your users a command that lets them read unread personal mail from the main menu with a single keystroke.

First, create a menu command with a selection key of "!" (exclamation mark). Under description, type

```
[!] .... Read Unread Personal Mail
```

For command type, select "Stack Commands" from the Global Commands list. Then for Parameters, type

```
M R U A
```

Wildcat! will execute each of these commands as if the caller had typed them individually. The first command changes to the message menu, the next selects the "read messages" command, the next selects "unread personal mail", and the last selects "all conferences".

Here is a complete list of command types, parameters, and notes.

Command type	Parameters	Notes
Bulletin menu	Conference Filename	Uses the path for the selected conference for bulletins. Selects a specific bulletin menu filename to display.
Door menu	List of doors from *MAKEWILD*	To run a specific door, select the door or menu hook by name.
Comment to Sysop	None	
Page Sysop	None	
Show HELLO Screens	None	
Questionnaire menu	Conference Filename	Uses the path for the selected conference for questionnaires. Selects a specific questionnaire file to execute.
Find user	None	
Change user settings	None	
Display statistics	None	Displays WCPRO.BBS.
List users	None	
Display newsletter	None	Displays NEWSLTR.BBS.
Who is on-line	None	
Read message Search messages	Conference number Read type: new, unread personal, none Scan type: current, all, selected, none Snoop mode (Sysop): conference	Force a conference number. Select message read type. Select conference selection type. Read without setting "received" flag or adjusting caller's high message pointers.
Enter message	Conference	Force a conference number

Command type	Parameters	Notes
Delete message	Conference	Force a conference number.
Check for mail	None	
Update scanned confs	None	
Run *wcMAIL*	None	
Info on a file	Filename Filearea	Force a specific filename. Force a specific file area.
List available files	Filearea	Force a specific file area
Download a file	Filearea Filename	Force a specific filename Force a specific file area
Upload a file	None	
New files since	Filearea	Force a specific file area.
Search for files	Filearea	Force a specific file area.
File transfer info	None	Displays FILES.BBS help file.
Personal file stats	None	
View ZIP file	None	
Read a text file	Filearea Filename	Force a specific file area. Force a specific filename.
Edit marked list	None	
Select Group	Group name	Select a file area group
Event management	None	
User editor	None	
Activity log list	None	
Erase activity log	None	
Files editor	None	
Status of databases	None	
Node management	None	
Sysop download	Select path, filename	Force specific drive:\path\file to download.

Command type	Parameters	Notes
Sysop upload	Select path, filename	Force specific drive:\path\file to upload.
Change conference	Conference	Specify to force a specific conference.
Run questionnaire	Conference Filename	Uses the path for the selected conference for questionnaires. Selects a specific questionnaire filename to display.
Expertise level	None	
Display HELP file	Conference Filename	Uses the path for the selected conference for help files. Selects a specific help filename to display.
Display MENU file	None	
Display DISP file	Conference Filename	Uses the path for the selected conference for bulletin and/or display files. Select any file name in the display file path for the current conference.
Display TEXT file	Filename Pause at end	Selects a specific text filename to display. Insert -Continue- prompt at end of file?
Display bulletin	Conference Filename	Uses the path for the selected conference for bulletins. Selects a specific bulletin to display
Logoff	None	
Run *wcCODE* program	Select .WCX filename	Name of *wcCODE* program to execute.

Command type	Parameters	Notes
Goto menu	Menu description	Select the name of the destination menu from the list.
Door/Menu hook	List of doors/menu hooks from *MAKEWILD*	Select the name of the door or menu hook to execute.
Stack Commands	Commands separated by space or semicolon	Combine any of the other commands on this menu, separated by spaces, to execute with a single keystroke.
Page User	None	
Run *wcCHAT*	None	

wcCODE programs

You can add *wcCODE* programs to your menus, either as new commands, or to replace internal commands. You do not need to own *wcCODE* to run *wcCODE* applications on your BBS — just a WCX application compiled for your version of *Wildcat!*.

To add a *wcCODE* program to any menu, select the menu you want to edit, then press [INS] to add a command, or select a command and press [ENTER] to modify an existing command.

Fill in the **Selection Key** and **Description** fields in the **Edit Menu Item** window. For **Command type,** select **Run wcCODE program.** Under **Parameters,** enter the path and file name of the *wcCODE* application to run, along with command line arguments you want to pass to the application. Press [F10] to save your new menu command, and exit *MAKEMENU*. You may need to run *MAKEWILD* to view your security profiles and verify that you have given access for the "Run *wcCODE* program" command as appropriate.

What if I make a mistake?

If you don't like the modifications you have made to a menu, you can restore it to the default settings supplied with *Wildcat!* with the [F7] key. Your

menu tree will be saved as WILDCAT.BAK in the current language directory, and the original default *Wildcat!* menu structure will be copied in its place as WILDCAT.MNU.

Tips and traps

You can make menu changes with *Wildcat!* running but you cannot delete a menu option until the entire system is down.

Each menu can have no more than 40 commands, so that *Wildcat!* can dynamically display all the commands on the screen. If you need more than 40 items on a menu, it's time to consider the complexity and organization of what you need to do. Too many choices confuses a caller.

Be careful not to duplicate the names of your menus, or you risk confusing yourself and your callers. If you clone a menu to assign security-specific options, give the cloned menu a different name.

Stacked commands provide single-keystroke convenience for frequently used selections. For instance, you can create a stacked command to Read Unread personal in All conferences, or force comments to the Sysop to conference 0 by replacing the internal Comments command with a stacked command to Join 0, then execute the Comments command.

You can print a copy of your current menu structure from the Menu Tree screen. Press [ALT] [P] to print, then type the name of your printer device (PRN is the default) or a DOS path and filename to save to disk instead.

Testing your work

Before you leave *MAKEMENU*, be sure to test your results. You can see what a caller at each security profile sees, at each menu you create, by using the [F9] Test button on the menu tree window.

MAKEMENU will display the dynamic menu for each security profile — press [F9] again on the dynamic menu to select a different security profile to view.

MAKEMENU will simulate the operation of all menu commands so you can check to see that a caller can get from menu to menu, without being able to see any command he should not have access to. Go back to *MAKEWILD* if necessary to adjust access to menu commands.

Prompts

What is a prompt file?

Wildcat! keeps all the text it displays to callers in a prompt file. This file is stored in database format, and you can edit it with the program *wcPROMPT*. Other programs use prompt files too, for instance *wcCHAT* and the off-line mail program *wcMAIL*.

This makes it easy to customize the wording and colors to suit your own preferences. You can also create sets of prompt files in different languages, and allow your callers to select the language they want to use for their on-line sessions.

If a one-line prompt does not provide enough information for your callers, you can replace it with a prepared text file that you can link to a prompt. You can also add @-macros to prompts for system and user information.

Editing prompts with *wcPROMPT*

wcPROMPT works in much the same way as your other *Wildcat!* utility programs. You can find a list of command line parameters and a command reference in chapter 8.

Prompt file editing is a step by step procedure. First you load the prompt file you want to edit, then choose the type of prompts to edit (regular or RIP), then you locate the prompts you want to change.

Selecting a language to edit

The first selection on the *wcPROMPT* main menu is "Select Language". We'll talk more about multiple language support a little later in this section. For now, we'll be editing the standard *Wildcat!* prompts, which means you can bypass this command and go straight to the "Load prompts" selection.

Loading

You'll notice two "Load" selections on the main menu: Prompts, and ASCII prompts. You'll probably do the majority of your prompt editing in *wcPROMPT*, so the proper choice is "Load Prompts". You can also save your prompt file in ASCII format for editing in a text editor outside of *wcPROMPT*, and re-import the file, saving it as a proper prompt data file, using the "Load ASCII prompts" command. We'll talk more about that later in this section.

The prompt files are named after the programs they belong to. For instance, the *Wildcat!* prompt file is called WILDCAT.PRM, while the *wcMAIL* prompt file is called WCMAIL.PRM, and so on.

The "Load Prompts" commands pop up a standard directory window. Use the ⇥ (tab) key or your mouse. to move from field to field, then select the file you want to edit.

Editing

Wildcat! and its support programs store each prompt twice: a regular version of the prompt, and a RIP version. The RIP prompts are only seen by callers who have RIP menus selected, either explicitly in their user settings or auto-detected during logon.

By keeping the regular and RIP prompts separate, we have been able to provide extensively customized RIP prompts for a completely graphical interface, without affecting those callers who prefer to use the regular text prompts. For the sake of consistency, don't forget that any changes you make to the regular prompts should also be made to the text of the RIP prompts — *wcPROMPT* does not update the RIP prompts automatically when you edit the regular prompts.

The *wcPROMPT* screen

```
Prompts: DEFAULT
File: WILDCAT.PRM   Prompt #:   1    Col: 1   Search: OFF   Modified: NO

@0E@
@0F@
@0E@
[ ]
 @0E@[@0F@Y@0E@/@0F@n@0E@]
 @0E@[@0F@y@0E@/@0F@N@0E@]
Invalid command entered.
@0E@[@0F@C@0E@]ontinue, [@0F@N@0E@]onStop, [@0F@S@0E@]top?~
@0E@[@0F@C@0E@]ontinue, [@0F@N@0E@]onStop?~
@0E@[@0F@C@0E@]ontinue, [@0F@N@0E@]onStop, [@0F@P@0E@]rev, [@0F@S@0E@]top?~
@0E@[@0F@C@0E@]ontinue, [@0F@N@0E@]onStop, [@0F@P@0E@]rev?~
Number out of range.
Original Prompt
@0E@
Edit Prompt
@0E@
Prompt Preview

F2 Goto   F3 Restore   F4 Search   F5 Color   F6 Codes   F7 File

14:10:59 | [F1] Help
```

The prompt editor uses standard WordStar-style editor commands, similar to the ones in the fullscreen message editor in *Wildcat!*. Press F1 to see an on-line help screen with editing commands.

As you edit the line, you can see the results of your changes in the preview window. in full color. Where appropriate, *wcPROMPT* will display meaningful data in place of @-macros for items such as user name, date and time.

Finding the prompt you want to edit

Wildcat! and its support programs display hundreds of different text prompts, and while the prompts for a particular part of the program tend to be grouped together, it can still take some time to find what you're looking for if you have to go through the file from beginning to end.

There are two quick ways to get to a specific prompt: The *Search* button, which searches for a particular occurrence of text within a prompt, and the *Goto* button, which jumps to a specific prompt number.

In the following example, we are searching for prompts that contain the string "download". Notice how the top part of the window now displays only those prompts with the word "download".

```
Prompts: DEFAULT
File: WILDCAT.PRM   Prompt #:  101      Col: 1   Search: ON     Modified: NO

@0E@Total download k?~
@0E@Total downloads?~
@0E@Total number of files downloaded today?~
@0E@Total download k for today?~
@0E@[@0F@ 5@0E@] @0B@New files        @0E@: @0F@@SUB1@ @0E@[@0F@21@0E@] @0B@Dow
@0E@Number of downloads for this file?~
@0E@Download [@0F@1-@SUB1@@0E@], [@0F@ENTER@0E@] to continue?~
@0E@Nothing selected to download.
@0E@You can archive and download your bulletins when you exit the bulletin men
@0B@Hot keys          @0E@: @0F@@SUB1@ @0B@Downloads       @0E@: @0F@@SUB2@
@0E@Automatically logoff after last download is completed@YNDEF@?~
@0E@You have these @0F@MARKED@0E@ files queued ready for download:
                          Original Prompt
@0E@Total download k?~
                          Edit Prompt
@0E@Total download k?~
                          Prompt Preview
Total download k?

 F2 Goto   F3 Restore   F4 Search   F5 Color   F6 Codes   F7 File

14:11:32 | [F1] Help
```

You can view the complete list of prompts by pressing the Search button again.

Changing colors

If you don't like the color of a prompt, you can change it. You can enter the @ color codes directly from the keyboard, or you can pop up a color palette with F5. Move the highlight around the screen to select the background and foreground color to use, then press ENTER. You can make the text blink by pressing B.

Adding trailing spaces

wcPROMPT only stores the actual text of the prompt in the file, and removes any spaces at the end of the text. You can use the tilde (~) character to represent a space at the end of the prompt — for instance if your prompt asks a question. *Wildcat!* will automatically translate one or more of these in the prompt to blank spaces when it displays the prompt to a caller.

Adding system macros

You can use most of *Wildcat!'s* @-codes in a prompt. As with the colors, you can type them in directly from the keyboard, or you can pop up a selection list with the F6 key.

What does @SUB#@ mean?

Many prompts contain variations of the string "@SUB#@". This is a special macro that is filled in by *Wildcat!* with information specific to that prompt. Since it has a different meaning in different parts of the program, you should not attempt to edit or delete this string, nor should you try to add it to other prompts, otherwise some important information may be shown incorrectly.

Making a one-line prompt into a two-line prompt

Although the edit window will let you put 160 characters of text into a single prompt (including color codes and @ macros), *Wildcat!* can only display 80 characters. If you have an exceptionally long prompt, you can display it over two or more lines by adding a special sequence of characters representing a carriage return and a line feed. The carriage return/line feed sequence looks like this:

```
^M^J
```

Enter the "^" character by typing SHIFT 6. *Wildcat!* will translate these automatically when it displays the prompt to a caller.

Replacing a prompt with a text file

You can replace a prompt with an imported text file in much the same way as you can import a text file into a message in *Wildcat!*. The proper syntax is

```
<<D:\PATH\FILENAME.EXT
```

You can type the file information yourself, or you can use the F7 button to pop up a directory window. If you enter a filename only without a path, *Wildcat!* will look for the file in the display file directory for the caller's current conference.

You can see many examples of RIP prompts that reference a text file in the default RIP prompts supplied with *Wildcat!*.

What if I make a mistake?

If you don't like the changes you made to a particular prompt, you can restore the default prompt automatically with the F3 button.

Saving

When you have finished editing your prompts, press ESC to return to the main menu. To save your work in a prompt data file, select "Save Prompts". To export your prompts to an ASCII file so you can edit in a text editor, select "Save ASCII Prompts". *wcPROMPT* will pop up a directory window so you can select the path and file name to save.

Importing and Exporting

If you have large-scale changes to make to your prompt file, for instance translating it to another language, you may prefer to use a text editor or word processor to edit the prompts. This allows you to use automated procedures such as searching and replacing text, plus location and insertion of line numbers.

If you use a text editor, you must be sure to turn off word-wrap so that each prompt stays on one line. Remember to use the control sequence

"^M^J" to force a prompt onto two or more lines, rather than entering carriage returns in the editor.

To re-import your updated ASCII prompt file, start *wcPROMPT* and select "Load ASCII prompts". Enter the name of your ASCII Prompt file, then select "Save Prompts". For *Wildcat!* and its support programs to use their new prompt files, the name of the prompt file must match the name of the program's executable file, and the extension must be .PRM. For instance, WILDCAT.EXE uses WILDCAT.PRM, WCMAIL.EXE uses WCMAIL.PRM, and so on.

Some of the prompts look quite similar. How can I find exactly which prompt to edit?

We have provided a special version of the *Wildcat!* prompt file called WILDCAT.PR#, which has line numbers at the beginning of each prompt. To use this, copy your original WILDCAT.PRM file to another directory, then rename WILDCAT.PR# to WILDCAT.PRM. When you start *Wildcat!* and log on, you will see the line number displayed with each prompt. Make a note of the prompt you want to edit it, then go back and modify your original WILDCAT.PRM file.

Don't forget to replace this special numbered prompt file with your regular prompt file before you put the BBS back on-line.

Adding other languages to *Wildcat!*

We've now shown you how to modify the display files, prompts and menus for the standard *Wildcat!* screen displays. Now you'll see how to include additional languages for *Wildcat!* so your callers can select their preference. Alternate languages are supported for prompts and dynamic menus, display files (including help filds, bulletins and menus), and questionnaires.

Wildcat! stores alternate language prompt (PRM) and menu (MNU) files in subdirectories under your LANGUAGE directory, off the *Wildcat!* home directory. Language specific display files and questionnaires are stored in a language directory below your conference paths for bulletins, menus, display files and questionnaires.

Here's how the directories would look if you had English, German, Spanish and French menus available:

Directory	Notes
C:\WILDCAT\LANGUAGE\ C:\WILDCAT\DISP\ C:\WILDCAT\QUES\ C:\WILDCAT\MENU\ C:\WILDCAT\BULL\	*Wildcat!* default language file. Your .PRM prompt files, .MNU menu files and .ACT multi user chat action word files will go here. Display files go in the conference display file paths.
C:\WILDCAT\LANGUAGE\ENGLISH\ C:\WILDCAT\DISP\ENGLISH\ C:\WILDCAT\QUES\ENGLISH\ C:\WILDCAT\MENU\ENGLISH\ C:\WILDCAT\BULL\ENGLISH\	Another copy of language files will be here. *Wildcat!* will use the language files in these subdirectories if a caller selects "ENGLISH" as their preferred language.
C:\WILDCAT\LANGUAGE\GERMAN\ C:\WILDCAT\DISP\GERMAN\ C:\WILDCAT\QUES\GERMAN\ C:\WILDCAT\MENU\GERMAN\ C:\WILDCAT\BULL\GERMAN\	Language files translated into German would go into these directories.

Directory	Notes
C:\WILDCAT\LANGUAGE\SPANISH\ C:\WILDCAT\DISP\SPANISH\ C:\WILDCAT\QUES\SPANISH\ C:\WILDCAT\MENU\SPANISH\ C:\WILDCAT\BULL\SPANISH\	Another set of translated files go here.
C:\WILDCAT\LANGUAGE\FRENCH\ C:\WILDCAT\DISP\FRENCH\ C:\WILDCAT\QUES\FRENCH\ C:\WILDCAT\MENU\FRENCH\ C:\WILDCAT\BULL\FRENCH\	And so on, for as many languages as you want to define.

MAKEWILD

The first step is to run *MAKEWILD* to define additional language selections. Use the Language Files selection on the main menu to pop up the current list of languages you want to support. Press [INS] to add another language.

In the window that pops up, type in the name of the custom language directory, up to 8 characters, and the description of the language as you would like it displayed to your callers. Then enter the characters this language uses for "Yes" and "No". *Wildcat!* will use these yes/no characters in places where a caller is prompted for a yes/no decision.

Your next step is to copy your existing .PRM, .ACT and .MNU files from the LANGUAGE directory into each custom language subdirectory. Then use *MAKEMENU* and *wcPROMPT* to load and translate the prompts and menus into their new languages, and *MAKEWILD* to translate chat action words.

Translating Chat action words

If you use action words in *wcCHAT*, you can have a corresponding version for each language. Be careful to keep the action words in the same order for each language, otherwise unpredictable results will occur.

External programs and Doors

An external program is a batch file or *wcCODE* program executed by *Wildcat!* in response to a menu command. The most common use is to launch other DOS programs —games, databases, and so on.

Some other *Wildcat!* operations function in much the same way as doors: external file transfer protocols, file viewers, upload file processing, and the auto-executing files LOGON1 and LOGON2.

In general terms, here's how they work:

- Caller presses a key associated with a "door" batch file or *wcCODE* program
- *Wildcat!* swaps out of memory, or terminates
- *Wildcat!* creates "exit files" in the node directory to pass information to the next program, including DOOR.SYS and USERREC.BIN.
- *Wildcat!* runs the *wcCODE* program or batch file associated with the menu key.
- Program launched by the *wcCODE* program or batch file takes over
- External program finishes and exits to DOS
- *Wildcat!* swaps in or restarts, reads "re-entrant" exit files, updates user or system information as necessary.

Launching the application

Wildcat! executes doors and external programs by running a *wcCODE* program or batch file associated with the menu command, located in the appropriate directory. *wcCODE* programs are always stored in the WILDCAT home directory, whereas batch files can be stored in the Batch directory or the Node directory.

Wildcat! looks for these files in order of precedence:

1. *wcCODE* program in the WILDCAT home directory

2. .RUN file in the node directory
3. .BAT file in the Batch directory

With a *wcCODE* program

Any external program executed via batch file can replaced with a *wcCODE* application with the same name as the associated batch file and the extension WCX. You can find a list of valid file names starting on page 583 of this manual. *wcCODE* programs must be stored in the WILDCAT home directory.

With a batch file

Door batch files must be located in one of two areas: the Batch file directory or the node directory. There are advantages and disadvantages for each.

Batch file directory

In this configuration, the door batch files reside in the Batch directory. When a caller executes a door, *Wildcat!* copies the door batch file to the node work directory as DOOR.BAT and executes it. The disadvantage to this setup is that a single batch file may not be able to handle various communication ports or door configuration parameters in a multiline system.

Node directory

In this configuration, the door batch files reside in each node directory, for instance C:\WILDCAT\WCWORK\NODE2, and are saved with the extension .RUN rather than .BAT. When a caller executes a door, *Wildcat!* looks for the "RUN" file in the node directory, then copies it to DOOR.BAT, then executes it. If the RUN file is not found in the node directory, *Wildcat!* looks in the Batch directory for the equivalent batch file, copies it to the work directory as DOOR.BAT and continues as before.

Where can I get a copy of DOOR.SYS?

The setup for most doors requires you to enter the path where DOOR.SYS can be found. DOOR.SYS is one of the temporary files created automatically by *Wildcat!* when a caller runs a door or external program. These files contain information about the caller currently on line, including port, baud rate, name, last conference, and more.

The only time you are ever likely to see a copy of DOOR.SYS is when *Wildcat!* is actually running a door or external program. DOOR.SYS and the other temporary files are deleted when *Wildcat!* returns from a door or external program.

Wildcat! always creates DOOR.SYS and the other temporary files in the node directory, for instance

```
C:\WILDCAT\WCWORK\NODE9
```

for node 9. You can find an explanation of all the fields in DOOR.SYS in the document WCDOORS.DOC, contained in the archive file WC40REC.ZIP in your *Wildcat!* home directory.

Door Processing

Exactly how *Wildcat!* executes DOOR.BAT depends on whether it is set to shell or terminate for doors.

. . . if you want *Wildcat!* to swap for doors

If *Wildcat!* is set to shell, it runs the batch file as a command line parameter passed to a second copy of the command processor, usually COMMAND.COM. The new command processor runs the batch file and exits back to the original copy when the last command is completed. This return from a shell is automatic. Do NOT restart CAT.BAT from your DOOR.BAT file if you shell for doors.

. . . if you want *Wildcat!* to terminate for doors

We showed you one example of a CAT.BAT file that terminates for doors back at the end of Chapter 3. This batch file uses DOS errorlevels to test for various conditions and branches accordingly. Here it is again:

```
@echo Now Executing CAT.BAT for Node 1
:RELOAD
SET WCNODEID=1
SET WCPORTID=1
C:
CD \WILDCAT
WILDCAT
IF ERRORLEVEL 4 GOTO CHAT
IF ERRORLEVEL 3 GOTO MAIL
IF ERRORLEVEL 2 GOTO DOOR
IF ERRORLEVEL 1 GOTO RELOAD
GOTO END
:MAIL
CD \WILDCAT\WCWORK\NODE%WCNODEID%
\WILDCAT\WCMAIL
GOTO RELOAD
:CHAT
CD \WILDCAT\WCWORK\NODE%WCNODEID%
\WILDCAT\WCCHAT
GOTO RELOAD
:DOOR
IF EXIST WCWORK\NODE%WCNODEID%\EVENT.BAT GOTO EVENT
CD \WILDCAT\WCWORK\NODE%WCNODEID%
DOOR.BAT
GOTO RELOAD
:EVENT
CD WCWORK\NODE%WCNODEID%
EVENT.BAT
GOTO RELOAD
:END
```

Don't forget to add the command CAT.BAT to the end of your event and door batch files if you terminate, or *Wildcat!* will not be able to restart.

Return From a Door

How *Wildcat!* regains control from a door depends on whether you have set *MAKEWILD* to shell or terminate.

If you choose to execute doors from a shell, *Wildcat!* will return automatically as soon as the batch file that loads the door program terminates.

If you choose to terminate *Wildcat!* for doors, some additional steps take place. The last statement in your door batch file must restart CAT.BAT. *Wildcat!* checks for the existence of a modem carrier when it starts, and reacts according to whether it finds its temporary door exit files in the node directory.

If *Wildcat!* does not detect carrier and does not find USERREC.BIN then it will start up normally, and wait for the next call.

If *Wildcat!* detects carrier and does not find USERREC.BIN, it will try to lower carrier, then start up normally. If this happens often, this could be an indication of a hardware problem with your modem, or a conflict between communication ports in your PC. Call MSI Technical Support for assistance in solving this problem.

If *Wildcat!* does not detect carrier, but does find USERREC.BIN, it most likely means the caller disconnected from the door. In this case *Wildcat!* erases this file after updating the caller's user record with the information.

If carrier is present *and* USERREC.BIN exists in the node directory, *Wildcat!* updates the caller's user record, deletes USERREC.BIN, then returns the caller to the same point he left the BBS.

Modifying user information from a door

A number of files are created by *Wildcat!* when it runs a door. Modifications made to these files will be used by *Wildcat!* when it returns, to update user information. You can find specific information about each of these files in WCDOORS.DOC, contained within WC40REC.ZIP, in your *Wildcat!* home directory. The following files can be modified by door programs, and the modifications will be honored by *Wildcat!* when it returns from a door:

File Name	Comments
SYSINFO.DAT	*Wildcat!* system information such as BBS name, current baud rate, command line start, and more.
FILEINFO.DAT	A list of the caller's currently marked files. Allows doors to add and delete files from the marked list.
USERREC.BIN	A complete copy of the caller's user record, in binary format.

The file PROFILE.DAT contains the current caller's current security profile, plus secondary profile accesses, and is the only file that should *not* be modified by a door.

User Verification on Return to *Wildcat!*

Yet another item of concern when operating doors has to do with the possibility of a person other than the original caller getting on the system when *Wildcat!* returns from a door.

The problem arises if you set *MAKEWILD* to use auto answer rather than ring detect or ring result to answer the phone. In that case the original caller could have been disconnected during the door for some reason, and anyone could have called in after the disconnect *but before Wildcat! returns*. The modem could answer the phone and raise carrier for the new caller. Now we have a situation where *Wildcat!* comes to life, finds a carrier present and then looks for USERREC.BIN. *Wildcat!* then assumes that the original caller whose name is in USERREC.BIN is returning, but we know better.

Wildcat! does have some additional security checking for instances where you must run doors in these circumstances. *Wildcat!* will always ask for the user's password if *MAKEWILD* is set to answer the phone by auto-answer. If ring detect or ring result is being used rather than auto-answer, no other caller could have established a connection so *Wildcat!* does not need to ask for a password. Nevertheless, we recommend not running doors if you must use auto-answer to answer the phone.

Cautions, Concerns and Caveats!

In actual operation a number of events may interrupt the remote user's connection or the batch file operation. A caller might disconnect while in a door, or the door itself could hang if it expects input from the local keyboard. These kinds of events could cause problems ranging from a locked-up system to a serious security breach if they are not handled properly.

Carrier Detect Monitoring

The first problem is the caller who drops carrier during a door. Unless the door is watching the carrier detect status, it has no way of knowing the caller is gone, and will wait indefinitely for further input, thus locking your system to subsequent callers. All door programs must monitor CD as part of their operation so they automatically terminate when carrier is lost, and return control to *Wildcat!*.

You should think twice about running any doors that do not properly monitor carrier. Although there are several utility programs which will monitor carrier and reboot if CD is lost, we recommend against their use since a system reboot can corrupt data files that are not properly closed, and could disrupt other callers on a multi-user system.

CTRL BREAK and CTRL C Lockout

Most users know they can terminate a batch file with CTRL BREAK or CTRL C. Obviously you don't want callers breaking out of your door batch files this way. *Wildcat!* automatically disables the CTRL C and CTRL BREAK keys when it is started, and enables them again when terminated. This means that you are automatically protected from a caller breaking out of a batch file unless the program you run as a door re-enables the keystrokes.

Use of CTTY disables this protection, which is why we don't recommend it for redirection.

Although there are programs such as BRK.DRV that also lock out CTRL C and CTRL BREAK, they are incompatible with *Wildcat!*, and will cause lock-ups.

My callers get a message that a door is always "in use by another node", even when no one else is connected. Why?

This happens when a door that is set for single-user only operation is erroneously flagged as "in use" in DOOR.DAT. This can happen if a node has a problem in a door and doesn't properly return to *Wildcat!* to be reset. To repair it, run *wcREPAIR*, select "Edit door status", select "Clear all" and then F10 to save the new status.

I have some older doors that need USERINFO.DAT. How can I create this file?

Wildcat! version 3 generated an additional door information file called USERINFO.DAT, which contained a subset of the user information in DOOR.SYS. For compatiblity with these older doors, you can use the utility program CNVUINFO.EXE to create a *Wildcat!* version 3 USERINFO.DAT.

CNVUINFO simply reads USERREC.BIN in the node directory, and creates USERINFO.DAT. Here is an example DOOR1.BAT file that uses CNVUINFO to run a door called "MyDoor":

```
REM MYDOOR requires old-style USERINFO.DAT
CNVUINFO
CD \WILDCAT\DOORS\MYDOOR
MYDOOR MYDOOR.CFG
CD \WILDCAT\WCWORK\NODE1
DEL USERINFO.DAT
```

Note that this specially-created file is not "re-entrant" — in other words, changes made to USERINFO.DAT will not be reread by *Wildcat!* when it returns.

Some of my doors give an error reading the conference numbers line of DOOR.SYS. How can I make these doors run on my system?

The DOOR.SYS file contains information passed by *Wildcat!* to an external program with information about the caller currently on line. The default is to list all conferences a caller has access to, but on systems with a very large number of conferences, this can cause problems.

If the door you are setting up appears to have a problem reading the standard DOOR.SYS file owing to the large number of conferences configured, go to MAKEWILD Door Setup screen, select the door you want to edit, and change the "Small DOOR.SYS" option to "Yes" to list only the current conference number.

Door Technical Support

Due to the differences in setup and configuration of this feature for each door, we must limit our technical support to problems with the *Wildcat!* interface only. This means that the we are unable to extend advice on specific door operation or hardware system configurations. We will assist in configuration of the DOORTEST program but after proper operation of DOORTEST, the responsibility for installation and operation of specific programs rests with the user. We make no commitments that any door program will run properly on your system. Each door operates differently and may require a conversion program, special device driver, BASIC run time module (BRUN40, etc.), or other type of manipulation to operate.

Some versions of DOS, in combination with some IBM compatible hardware, do not function properly with the CTTY command or with some doors. This is a DOS/hardware problem and not a flaw in the *Wildcat!* program.

Questions on specific doors should be directed to the program author. We encourage program authors to contact Mustang Software for configuration advice and possible testing of their product within our beta group.

If you want to run doors, we suggest you call the *Wildcat!* HQ BBS and make use of tips and suggestions offered by other Sysops in the message conference and file areas devoted exclusively to doors.

A sample door: DOORTEST.EXE

We have provided a simple door program to help you learn to set up doors and test the proper syntax and location of your door batch files. DOORTEST displays the BBS name, and echoes the caller's keystrokes back to him. Note that DOORTEST works only with regular serial ports 1 through 4 only. It does not support fossil drivers or intelligent DigiBoard cards.

The first step is to create a configuration file for DOORTEST. This configuration file is only two lines long. It must contain the following information:

- The path to DOOR.SYS for this node on line 1 of the file
- The name of your BBS on line 2 of the file.

Your DOORTEST.CFG file should look something like this:

```
C:\WILDCAT\WCWORK\NODE1\DOOR.SYS
MSI HQ BBS
```

Save this file as DOORTEST.CFG in your WILDCAT directory.

Next, create a batch file to run this door. We'll call it DT.BAT. If you shell for doors, as we recommend, the batch file should say only

```
DOORTEST DOORTEST.CFG
```

Add CAT.BAT to the end of the batch file *only* if you have elected to terminate for doors.

Next, run *MAKEWILD*, and go to Doors. To add DOORTEST to your list of door programs, press [INS], and fill in the fields for description and the name of the batch file. We'll leave the "display file" and "multi-user door" fields blank for now.

Now go to Security Profiles, and select the Sysop security profile. Press F4 to pop up the list of doors, and turn on access for the new door you just added.

Now log onto *Wildcat!* and go to the door menu, then select "DOORTEST". If it is set up correctly, it will display a banner showing your BBS name, then it invites you to press a key to see it echoed back to you by the program.

Running non-Door applications remotely

You can run DOS applications as external programs, even if they do not have their own communication routines built in, providing they meet the following criteria:

- The program runs under DOS
- It runs in character mode only, not graphics mode.
- The program's keyboard and video I/O can be redirected to the communication port
- There is sufficient free memory to execute the program after redirection.

Non-DOS applications, including those that only run under Windows, *cannot* be run remotely from a BBS.

Redirection

A normal DOS program expects all its input and output to take place from the keyboard and screen. In order to run it remotely over a modem, you must provide some external means for its I/O to be redirected to the serial port. There are two ways to accomplish this.

The first is to use the CTTY command from DOS. This performs only the most basic I/O redirection, performs no carrier monitoring, and will not work with the vast majority of modern DOS programs, which access video memory directly rather than going through DOS.

CTTY has some other more critical drawbacks for BBS use. It has no way to recover control from a crashed application, it does not support non-standard serial port assignments, it is incompatible with many networks, multitaskers and some hardware, and it has no means whatsoever to check a caller's security to run any particular command.

A better way to redirect I/O is to use a program specifically written for that purpose. The one recommended by Mustang Software, Inc. is called DOORWAY by Trimark Engineering, and is available for download from MSI HQ BBS as DOORWAY.ZIP.

DOORWAY allows almost any DOS program to be run as a door, and allows a user to remotely control a computer over a modem. It can redirect all programs except those that use bit-mapped graphics.

DOORWAY functions in much the same way as CTTY, but offers smoother installation and operation on a wide range of hardware and DOS versions. You can find complete documentation in the file DOORWAY.ZIP from MSI HQ BBS, meanwhile we'll go over a few highlights here.

Remote drop to DOS

The simplest way to use DOORWAY is to launch a DOS shell from the Sysop menu. This will allow you to run DOS commands, or even run DOS programs. You can set this up from the Menu Hooks section of *MAKEWILD*. Don't forget to run *MAKEMENU* and add the drop to DOS command to your Sysop menu.

We'll use DROPDOS.BAT as an example:

`ECHO OFF` prevents display to the screen

```
DOORWAY COM%WCPORTID% /S:* /G:ON /V:B^U /M:1000 /C:DOS
```

This line tells DOORWAY to redirect to COM? (the ? is filled in by the environment variable WCPORTID), not to look for any user specific files (/S:*), turn on graphics and cursor control (/G:ON), use BIOS redirection but allow remote user to switch to DIRECT SCREEN mode with a control "U", allow the user 1000 minutes in DOS (/M:1000), and to load COMMAND.COM and shell to DOS (/C:DOS).

```
REM - THE NEXT TWO LINES ARE ONLY NEEDED IF YOU ARE
REM - NOT USING THE SHELL OPTION BUT ARE TERMINATING
REM - REMOVE THEM IF YOU ARE USING SHELL!
```

`CD \WILDCAT` changes back to the WILDCAT dir.

`CAT.BAT` restarts *Wildcat!* if it was terminated rather than shelled.

To return to *Wildcat!*, type EXIT while in the DOORWAY shell.

```
C:\> EXIT ENTER
```

Doorway then exits and resets all redirection back to the original parameters. If *Wildcat!* was swapped out, no further commands are necessary — it will reload automatically. If *Wildcat!* was terminated, the remainder of your DROPDOS.BAT file reloads *Wildcat!* via the CAT.BAT file.

Running other applications from DOORWAY

Since *Wildcat!* generates a DOOR.SYS file, the following batch file can be used for running programs that use direct screen writes:

```
DOORWAY SYS /B:MZ /V:D /P:PROGRAM.EXT
```

PROGRAM.EXT is the name of the executable program to run as a "DOOR". The extension MUST be given, and any parameters to be passed to it must follow the filename on the command line.

If the program is located someplace other than in the current directory (the node work directory), put the full path before the program name. Also if the program needs to look in its own subdirectory for any of its files, you put a /CD on the command line to tell DOORWAY to change to the program's subdirectory before launching the program.

Many other command line options are available in DOORWAY — consult the documentation for that program for full information.

Auto-executing Logon files

You can force a caller into an external program or a *wcCODE* application by using one of the auto-executing logon files.

LOGON1.BAT and LOGON2.BAT

Wildcat! recognizes two special batch files, which will run automatically if they are present in the Batch directory or node directory when a caller logs on.

The first file, LOGON1.BAT, executes immediately after the caller enters his first and last names and password. The second file, LOGON2.BAT, executes after the logon process is complete, just before the caller reaches the main menu prompt.

You can use these automatically executing batch files for a variety of purposes. For instance, you could run a utility program to look up a caller's security profile in DOOR.SYS or USERREC.BIN, then branch to a callback verifier door if the caller is a new user, or return to *Wildcat!* if the caller is already established as a user on the BBS.

LOGON.WCX

LOGON.WCX executes automatically during the logon process, immediately after the caller enters his password. You can use a *wcCODE* application here to test for such things as quick logon, security profile and security override, or even to recognize a specific caller, and automatically launch another program.

You can find out more about *wcCODE* in the Appendix to this book, or by calling MSI Sales at 800-999-9619 or 805-873-2500.

Viewing compressed files

The file menu command "View ZIP file" allows callers to view the contents of compressed files. To do this, *Wildcat!* runs a batch file called VIEWCOMP.BAT. This batch file then launches an external program that lists the files within an archive with their dates and sizes, to a file for display to the caller.

We have provided a simple archive file viewer with *Wildcat!* called VZ, that lists the file names, dates and sizes to a text file.

VIEWCOMP.BAT works in much the same way as the door batch files we discussed in the previous section. You can keep it either in the home directory or in the node directory. *Wildcat!* passes the complete drive, path and filename for the selected file as %1.

VIEWCOMP.BAT should look like this:

```
VZ %1 VIEWCOMP.DAT
```

When the program finishes, *Wildcat!* displays the contents of VIEWCOMP.DAT to the caller, complete with screen pauses if necessary.

Other external file viewing utilities

The MSI program VZ.EXE provides only the most basic archive viewing functions. Several third-party programs designed to work with *Wildcat!* offer enhanced file viewing functions, including viewing the contents of text files on the screen, virus and file integrity checking, and selective downloading of selected files within the archive.

Two good external file viewing utilities for *Wildcat!* are Dataview by Ryan Cramer, and Aviewcom, by Daniel Durbin. Demonstration versions of both programs are available for download from MSI HQ BBS.

GIF Thumbnails — *GIFSCOPE* and *wcREDIR*

Callers can preview .GIF files before they download their selection of files by asking *Wildcat!* to create a "thumbnail" file. Callers are automatically prompted for a thumbnail when they request a download of one or more files with the extension .GIF.

Wildcat! uses two programs to create this thumbnail image for the caller.

wcREDIR

wcREDIR is a simple program with only one purpose in life — to run in a batch file and redirect output from a program (such as GIFSCOPE) that doesn't write to the COM port. When you run *wcREDIR* with a command line, it gets the port and speed information it needs from USERREC.BIN, then launches the program on the command line, and redirects its output to the local screen and the serial port. When the program finishes running, *wcREDIR* exits.

GIFSCOPE

GIFSCOPE is the program that actually does the work of packing up GIF files into a single "proof sheet" or "thumbnail" file. It supports a variety of image sizes from 640 x 480 to 1280 x 1024, and has command line parameters for additional processing.

The THMBNAIL.BAT file should look like this, and should be located in your Batch directory:

```
C:\WILDCAT\WCREDIR C:\WILDCAT\GIFSCOPE /WILDCAT /RES:%1 /OUT:%2
```

Wildcat! passes the resolution as %1 and the name of the output file as %2. The /WILDCAT switch tells GIFSCOPE to get the names of the callers queued-up GIF files directly from *Wildcat!*. You can see a complete list of command line parameters by typing

```
GIFSCOPE /? ENTER
```

Just as with other batch files, you can have .RUN or .BAT versions of this file, in the Node and Batch file directories, respectively.

Virus scanning and upload processing

Many Sysops are concerned about receiving computer viruses in the files their callers upload. Other Sysops may want to screen uploads based on the age of the files within an archive, or check the integrity of the file itself before accepting the file. Still others may want to copy a file to another device for further processing — for instance a service bureau that outputs image files on a plotter or imagesetter.

Wildcat! gives you an easy way to process and test newly uploaded files while the caller waits. As soon as a file is received, *Wildcat!* swaps out and executes SCANFILE.BAT in the batch directory. *Wildcat!* passes two parameters to the batch file: %1, which passes the complete drive, path and filename of the new upload, and %2, which passes the *Wildcat!* file area number.

Example batch file

Here is a very simple SCANFILE.BAT that uses the file integrity testing command in PKZIP to report whether or not the file was corrupted during the transfer:

```
IF EXIST SCANFILE.BAD DEL SCANFILE.BAD
PKUNZIP -t %1 %2
IF ERRORLEVEL 1 COPY \WILDCAT\ALL.OK SCANFILE.BAD
```

If the file fails the integrity check for any reason, PKUNZIP returns an errorlevel. If we get an errorlevel of 1 or higher, we copy a dummy file from the WILDCAT home directory to the file SCANFILE.BAD. Failed files should *not* be moved from their original directory, nor should they be renamed, or *Wildcat!* will be unable to find the file and will log an error.

When a file fails the check, *Wildcat!* sets the Failed Scan Flag in the database to Yes which prevents anyone, including the Sysop, from downloading or listing the file. A note is also placed in the ACTIVITY log

indicating the scan failure. It is the responsibility of the Sysop to investigate the file.

Adding file descriptions automatically to uploads

Many shareware programs contain pre-written description files in one of two standard formats: FILE_ID.DIZ and DESC.SDI. These description files allow a shareware author to provide meaningful information to BBS callers when the file information is displayed on screen.

Wildcat! will automatically import these standard description files if one or both are extracted into the node work directory after an upload. FILE_ID.DIZ is a multi-line description, while DESC.SDI is a single line of text. FILEDESC.BAT is executed after *each* file is received, while SCANFILE.BAT runs after all files in a batch upload have been received.

Wildcat! passes two parameters to the batch file: %1, which passes the complete drive, path and filename of the new upload, and %2, which passes the *Wildcat!* file area number.

Here is an example FILEDESC.BAT:

```
PKUNZIP %1 FILE_ID.DIZ DESC.SDI
```

As with other batch files, you can store the .BAT version in your Batch file directory, or a .RUN version customized for each node in the node work directory.

If you receive files in other formats besides .ZIP, you can test for the file extension as part of the batch process. Utilities are available that return an errorlevel for each archive type, and you can use that errorlevel to branch to the correct archiving utility for the file.

Automated scanning and file processing

Some more advanced file scanning and testing tools are available from MSI HQ BBS. Two popular choices are Transcan by Craig Dunstan, and Catscan by Mike Ortiz. Please refer to the documentation with these programs for example batch files and applications.

External protocols

External protocols are file transfer protocols you can add to your BBS. You do this by obtaining a **protocol driver** such as HS/Link or GSZ, adding it to your file transfer protocol menu, and writing batch files to control uploads and downloads. Once these external protocols have been added to *Wildcat!*, callers will be able to use them for file transfers in the same way as they use *Wildcat!'s* built-in protocols.

Why use external protocols?

Some external protocols, such as HS/Link, offer bi-directional file transfers. This means that a caller can upload and download files at the same time. Other protocols, such as GSZ (Graphical Zmodem), offer some enhancements over the standard Zmodem protocol contained within *Wildcat!*.

Where can I obtain external protocol drivers?

External protocol drivers are not distributed with *Wildcat!*. However, many protocol drivers are distributed electronically, and the MSI HQ BBS offers an entire file area devoted to external protocol drivers, batch files and setup tips. Most of these drivers require payment of a license fee directly to the author if you continue using the driver after an evaluation period. Others may be available from commercial vendors and software developers.

Most protocol drivers are supplied with documentation on how to set up and use the programs with a BBS. In many cases, sample upload and download batch files are provided.

Tools you need

- An external protocol driver. For our example, we'll use DSZ, a popular shareware Zmodem driver that offers additional features such as Moby Turbo. You can download the latest version of DSZ from the MSI HQ BBS.
- A text editor, to create the ZUP and ZDOWN batch files.

- A file viewer or printer, so you can refer to the DSZ documentation file where necessary.

Step by step . . .

- Extract DSZ.COM from the DSZ####.ZIP archive, and copy it to your *Wildcat!* home directory. Review the DSZ.DOC file for an overview of how the program is designed to operate.
- Add the following line to your CAT.BAT file to indicate the location of DSZ.LOG. This is a standard log file used by many external protocols, and records all files uploaded and downloaded during a session.

```
SET DSZLOG=C:\WILDCAT\WCWORK\NODE%WCNODEID%\DSZ.LOG
```

- Using your text editor, create the file ZUP.BAT in your BATCH directory. Note that DSZ command line parameters are case sensitive. Type the commands exactly as they appears below:

```
DSZ port %2 handshake both restrict rz -m
```

This batch file starts DSZ and tells it which port (%2) to use. The "handshake both" is a DSZ command to use both hardware and software flow control. The speed is set automatically. The characters "rz" are short for "receive using Zmodem", and the "-m" means use the "Moby Turbo" option.

The word "restrict" is a special Zmodem command which places all received files in the current directory, ignoring any full path names that may be sent. The characters "rz" mean "receive using Zmodem", and once again "-m" means "use Moby Turbo".

We don't need to specify file names, since *Wildcat!* will get this information from the DSZ.LOG file after the transfer.

- Now, create a ZDOWN.BAT file containing the following command line:

```
DSZ port %2 ha both sz %5 -m
```

This command line starts DSZ and tells it which port (%2) and filenames (%5) to use. The "ha both" is a DSZ command to use both hardware and software flow control. The speed is set automatically. The characters "sz" are short for "send using Zmodem", and the "-m" means use the "Moby Turbo" option.

- Take all nodes down and run MAKEWILD. From the main menu, select **External Protocols.** Press INS to pop up the edit screen, and fill in the following fields as shown:

```
Protocol character    : M
Protocol description  : Moby Zmodem
Upload batch name     : ZUP
Download batch name   : ZDOWN
Batch protocol        : Y
```

  Press F10 to save your changes, then press F10 again to return to the main menu.

- Select **Security Profiles**, then select F4 **Global**. Scroll down to the **Profile Access Toggles** screen, and select **Protocol access settings.** Highlight Moby Zmodem on the list, and press S to turn on access to this protocol. Press F10 to return to the previous screen, then press F5 to select the security profiles to update. Press SPACE to tag individual entries, A to tag all entries, or C to un-tag all entries. When you have finished selecting security profiles, press F10 to return to the previous screen, then press F10 to complete the update.

- Exit MAKEWILD and restart CAT.BAT. You can now dial into your BBS to verify that Moby Zmodem shows as a protocol selection for uploads and downloads, then try a file transfer to verify that the batch files are working correctly.

Tips

If you were lucky enough to get pre-configured batch files written for *Wildcat!* BBS with the protocol driver, check that the files point to the correct drives and paths, edit them if necessary, and then copy them to your Batch file directory.

If you have to write the batch files yourself, you will need to supply information on port number, speed, file names and optional parameters to the protocol driver. Some of this information is passed by *Wildcat!* when it executes the batch file, so you can make use of the "replaceable parameters" in DOS's batch command language.

Wildcat! passes the following information to your batch file:

%1	DTE baud rate (port speed)
%2	Communication port number
%3	Time remaining for the current call
%4	DCE baud rate (connect speed)
%5	File name for single file transfer, or @FILES.LST for batch transfer

Bi-directional Protocols

Some external file transfer protocols are capable of sending and receiving files simultaneously, and can offer considerable improvements in throughput. One good example is HS/Link from Samuel Smith.

To install a bi-directional protocol in *Wildcat!*, follow the general instructions for installing external protocols in *MAKEWILD*. You should also consult the documentation for your protocol driver for instructions for batch file creation.

An example upload batch file (HSUP.BAT) is given below, using HS/Link as our protocol driver:

```
ECHO > TRANSFER.BAD
HSLINK -P %2
```

The TRANSFER.BAD file is created before the upload begins, so that *Wildcat!* can determine by the existence of this file if the transfer was canceled before any files were sent. It is deleted automatically by *Wildcat!* when DSZ.LOG is examined.

Here is an example of HSDOWN.BAT:

```
HSLINK -P %2 %5
```

To simplify batch file commands, HS/Link is able to store its default settings, for example port speed, in a configuration file. Information on how to create this configuration file is contained in the documentation for HS/Link.

External protocols and event scheduling

When *Wildcat!* runs an external protocol, it is swapped out of memory and thus has no way to keep track of the time. *Wildcat!* will estimate the transfer time based on the caller's baud rate and the file size, but if a file transfer using an external protocol takes longer than the estimated time, it may interfere with a scheduled hard event.

If you have a hard system event that must execute at a specific time of day, you can use the utility program **TIMEOUT** to keep track of the time during an external protocol transfer. TIMEOUT will automatically disconnect the caller at the time the hard event is scheduled to take place, regardless of whether or not the file transfer was completed.

Since TIMEOUT is a TSR (Terminate and Stay Resident) program, it must be unloaded before returning control to *Wildcat!*, otherwise memory will be corrupted and your system will crash. Here is an example of a ZUP.BAT file that uses TIMEOUT to monitor the clock prior to a scheduled event, executes DSZ, then unloads TIMEOUT before returning to *Wildcat!:*

```
TIMEOUT -m%3
DSZ port %2 handshake both restrict rz -m
TIMEOUT -U
```

TIMEOUT

TIMEOUT is a terminate and stay resident (TSR) command line utility used to ensure that callers do not remain on-line in an external protocol beyond their allowable time. This program is included with *Wildcat!* and works with serial connections only — not DigiBoard or Fossil. The syntax for TIMEOUT is:

```
TIMEOUT [-M#] [-B#] [-U] [-?]
```

-M# is the letter M followed immediately by the number of minutes until a forced disconnect. The number of minutes remaining for a caller is passed by *Wildcat!* in the %3 parameter. This parameter can be used in the command line in place of the number of minutes, like this:

```
TIMEOUT -M%3
```

For example, if a caller has 45 minutes available on the BBS and enters an external protocol, the above command line is translated as -M45.

-B# is the letter B immediately followed by the communications port base address. This number must be entered in hex with the hex identifier $ as the first character. The default (if not entered) is $3F8 indicating COM1. The common value for COM2 is $2F8, for COM3 it is $3E8 and for COM4 it is $2E8.

-U unloads the TIMEOUT TSR from memory, and *must* be included at the end of any batch file that runs TIMEOUT. If TIMEOUT is not unloaded before returning to the BBS, memory will become fragmented, and your system will probably crash. **Don't overlook this!**

TIMEOUT operates by monitoring the clock at long intervals to determine when the number of minutes specified by -M has elapsed. It then disconnects the caller by lowering the DTR line on the communications port specified.

A typical upload batch file using TIMEOUT would look like this:

```
TIMEOUT -m%3
DSZ port %2 handshake both restrict rz -m
TIMEOUT -U
```

Questionnaires

Questionnaires allow you to gather data about your callers. Your callers can answer questionnaires voluntarily, by going to the "Questionnaire" menu or as a regular menu selection defined in *MAKEMENU*, or you can "force" them to answer a questionnaire as part of a *wcCODE* program.

The most common uses for questionnaires are

- gathering new user information
- on-line order entry
- surveys and voting

You can use the information your callers provide in a variety of ways. For instance, answers to questions such as "address" can be stored automatically in the caller's user record, along with their preferred settings for color menus, editor, and so on. You can even change a caller's security profile, change their expiration date, or add credits to their Netmail or subscription balances.

There are four basic types of questionnaires. Three of them have predefined names, and will execute automatically if *Wildcat!* finds them in your Questionnaire directory. These are:

Filename	Notes
QUESNEW	the "newuser" questionnaire. *Wildcat!* will automatically run this questionnaire for a new user logging onto your BBS for the first time. In this questionnaire, you can ask the caller for personal information, such as mailing address and date of birth. At the same time, you can update their user settings, allowing them to select their preferred editor, file transfer protocol, screen display mode, and so on.
QUESCLOS	the "closed BBS" questionnaire. This questionnaire only executes if you have selected "Closed Questionnaire" in *MAKEWILD* in the "Newuser access to system" section of the Security Information screen. You can use this to collect information about people who want to register on your BBS, so that you can add their user information manually.

Filename	Notes
QUESDATE	the "date sensitive" questionnaire. QUESDATE will run just after the caller enters his name and password. This questionnaire only executes if its filedate is newer than the caller's last logon date. This is the questionnaire to use if you want all your callers to answer it, but you only want them to answer it once.
QUES1 to QUES9999	the "generic" questionnaire. Callers answer these questionnaires "voluntarily", by selecting the Questionnaire menu, and typing the number of the questionnaire they want to answer.

You create and edit questionnaires using the program *MAKEQUES*. To make the questionnaires available to your callers, you must add a "Run Questionnaire" command to your menus, using *MAKEMENU*. The "Run Questionnaire" command by itself will display the questionnaire menu, and allow the caller to select a questionnaire to answer. By adding conference number and questionnaire file name parameters, you can put the user into a specific questionnaire.

Questionnaire data files (extension .DAT) and answer files (extension .### where ### is the one to three digit node number) are stored in the questionnaire directory. Remember that each conference can have its own path for questionnaires.

What do I do with the answer files?

Answer files are saved in plain ASCII text in the conference questionnaire directory, with the caller's name at the beginning of each session. Answers are recorded beginning with the question reference number, so you can easily see which answer goes with which question. New questionnaire sessions are stored at the end of the answer file.

You can print the answer files or list them to your screen, and enter the data manually into an accounting or database application. Or you can print the answers to your "newuser" or "closed" questionnaires, and refer to the printed copy as you view and edit their user records from *Wildcat!*

Be sure to archive or delete your answer files from time to time if you need to conserve disk space.

You can even mail yourself a copy of the questionnaire answer file with a few simple *wcCODE* commands, executed as part of your post-call batch file or from POSTCALL.WCX. There are many possibilities.

wcPRO from MSI can help you manage the automated processing of questionnaire answer files. With *wcPRO*, you can export information into a variety of formats: mailmerge, charts and bar graphs, and .DBF (dBase) database files.

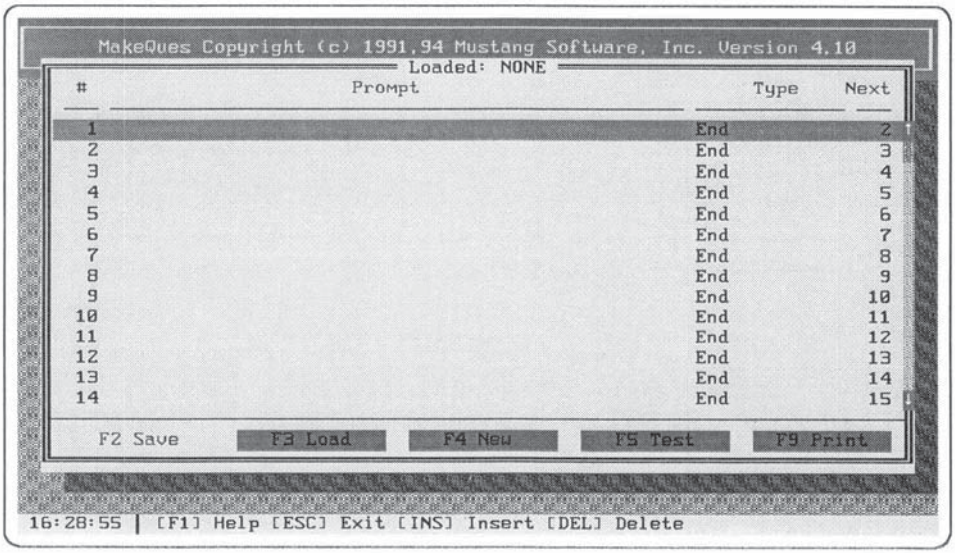
For information on *wcCODE* and *wcPRO*, call MSI at 800-999-9619 or 805-873-2500.

Creating questionnaires with *MAKEQUES*

The easiest way to get started is to load one of the sample questionnaires installed in your \WILDCAT\QUES directory. Change to your *Wildcat!* home directory, and from the DOS prompt, type

MAKEQUES ENTER

MAKEQUES will first prompt you for the language to edit, then the following screen will appear.

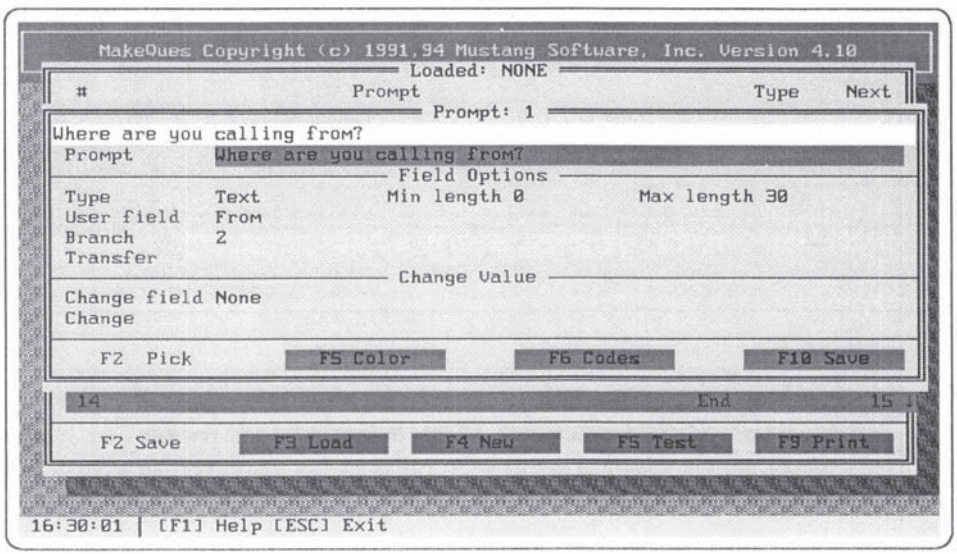


Note the layout of the screen: the question number, the prompt, the question type, and the number for the next question.

Press F3 to load a questionnaire. Since each conference can have its own paths for questionnaires, select the appropriate conference from the list (in this case, Conference 0).

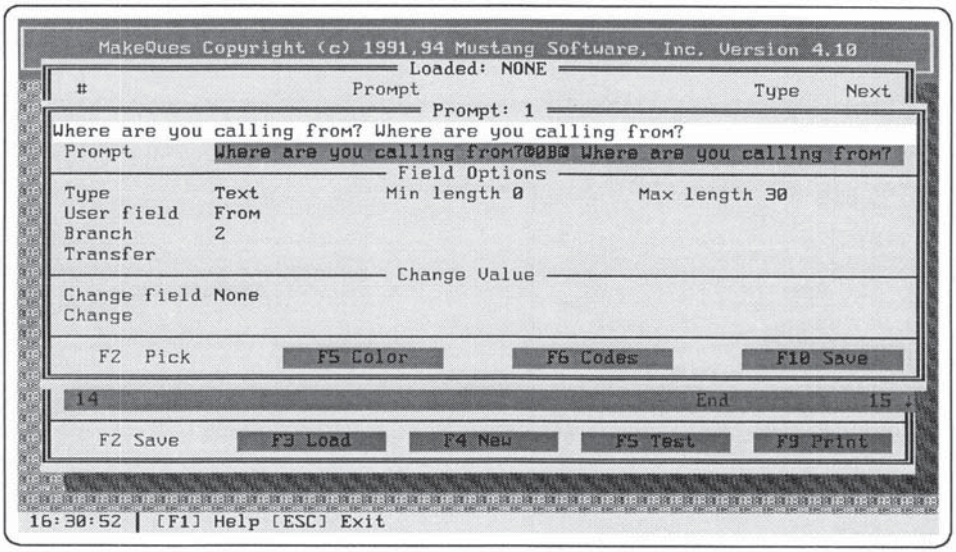
Select QUESNEW.DAT from the list of questionnaires in the list. Note the change to the *MAKEQUES* screen.

Now, let's edit the first question on the list. Using your arrow keys, move the highlight bar over Question 1, and press ENTER. Your screen should now look like this:



Go ahead and type something in the "Prompt" field, and note how the text in the preview window changes as you type. To change the color of the text you're typing, press F5 and use your arrow keys or mouse to select the color combination you'd like to use, then press ENTER to return to the editing screen.

As the next illustration shows, *MAKEQUES* automatically inserted the *Wildcat!* color codes in the prompt.



Now, press ENTER or ↓ to move to the next field, "Type", then press ENTER again. Each question has to be of one type or another, so *Wildcat!* knows what kind of response to get from the caller. For the most part, the question types are self-explanatory.

The next prompt is for "User Field". Press ENTER on this prompt to pop up another list. These are the user record fields *MAKEQUES* can update with a caller's response.

The next field to look at is "Branch". This is the number of the next question to display when the caller has answered the current question. You can branch forwards and backwards, or jump several questions based on a caller's response.

The next field is "Transfer". Since each questionnaire is limited to 100 questions, including yes/no and multiple choice branches, you may need to break long, complex questionnaires into several files to make them easier to manage. Press F2 on this field to pop up a list of questionnaires from which you can make your selection.

The final two fields in this window allow you to change or update a user record field. For instance, if you want to add 1000 credits to a caller's subscription balance, pop up the selection list by pressing ENTER on the line labeled Change field, and select Subscription Balance. Then on the next line, type 1000.

Question Types

MAKEQUES allows you to define formatted responses to questions, by specifying a question type. You can update user record fields, enter multiple-choice questions, or filter responses for credit card, date and phone number fields.

Type	Input Mask	User record	Notes
Alias	Alpha + Numeric	Alias	
AMEX MasterCard Visa13 Visa16 Discover	Numeric Card # plus Expiration Date		Note that *Wildcat!* and *MAKEQUES do not* perform any internal checking for the validity of the credit card numbers entered by the caller — any information gathered this way should be verified through your bank before goods and services are offered on the basis of input from a questionnaire.
Choice	Multi-Choice		Allows the user to select a response from a list of numbered choices, then branch based on response.
Date	Numeric ##/##/##	Various	Date format depends on *MAKEWILD* setting.
Display	ASCII ANSI Rip Auto	Display	

Type	Input Mask	User record	Notes
Editor	Line Full Screen Select	Editor	
End			Ends the questionnaire, and is not displayed to the caller. Any questions *after* an End question will not be displayed.
File Display	Single Double Full	File Display	
Help	Novice Regular Expert	Help Level	
Language	Multi-choice	Language	Selection depends on *MAKEWILD* setting
Msg Display	Scroll Clear Screen Lock Header	Read Mail Mode	
None	Alpha + Numeric		Displays the prompt text to the caller, but does not request a response. Use this to preface questions with additional text, or to display comments to the caller between questions.
Numeric	Numeric	Various	Use this type for answers not specifically covered in the formatted fields for Date, Phone, etc..
Packer	Multi-Choice	Packer	Selection depends on *MAKEWILD* settings

Type	Input Mask	User record	Notes
Phone	Numeric ###-###-####	Various	Standard US phone number format. Use Numeric type for non-US phone numbers.
Protocol	Multi-Choice	Protocol	Selection depends on *MAKEWILD* settings
Sex	Male Female Not disclosed	Sex	Accepts M, F or N and is Non-branching on the result.
SS	Numeric ###-##-####		Standard US Social Security number format.
State	Alpha XX	State	2 letters only, forced upper case.
Text	Alpha + Numeric	Various	Callers can enter any alpha-numeric input and punctuation in a text field.
Time	##:##		Format depends on *MAKEWILD* settings.
Yes/No	Y/N	Various	Prompts the caller to answer yes or no to a question. Non-branching.
Yes/No Branch	Y/N	Various	Prompts the caller to answer yes or no to a question, then branches, based on response.
Zip	Numeric #####-####	Zip	Standard US 9-digit (ZIP + 4) format. Use Text or Numeric type for non-US postal codes.

Inserting and Deleting Questions

The INS key allows you to "open up" the text to insert another question. To delete a question, highlight it and press the DEL key. Notice how the "branch" numbers are automatically updated when you do this.

Replacing a Questionnaire prompt with a text file

You can replace a questionnaire prompt with an imported text file in much the same way as you can import a text file into a message in *Wildcat!*. The proper syntax is

```
<<D:\PATH\FILENAME.EXT
```

Automatically displaying system information

You can use *Wildcat!* @-codes to display system information such as date, time, the user's name, and so on. Press F2 when you're in the Prompt field to pop up a list of @-codes.

Changing user record information from a questionnaire

You can change user record information from a questionnaire based on a caller's response to a question. There are two ways to do this. The first way is to direct the caller's answer to a question into the appropriate user record field in the **Field Options** section of the **Prompt** window, while you are editing a questionnaire prompt. See the previous table for a list of question types and options.

The second type of change uses the **Change Value** section of the **Prompt** window. User record information can be updated here without the caller being aware of the change — this is useful for questions that pre-screen a caller for products purchased, or for adult access for example.

Select the user record field you want to change under **Change Field**, then under **Change**, enter the data you want to insert into the user record at this point. Notice that the same character, numeric, and multiple choice masks are applied to this field as they would be to the corresponding field in the user record.

Testing your questionnaire

Press F5 to "test drive" your questionnaire. Note that *MAKEQUES* cannot fill in all of the system information from @-codes, nor does it display the contents of redirected files that replace question prompts, but it will fill in

what it can. It will not actually change user record information within *Wildcat!*, so use this opportunity to ensure that questions branch properly.

Saving and Loading

Normally, you would save your questionnaire to disk by pressing F2 before exiting. If you don't want to keep the changes you made to QUESNEW.DAT during this tutorial, press ESC to abandon the file and exit.

To start a new questionnaire without exiting *MAKEQUES*, press F4.

To "quick-load" a questionnaire from the DOS prompt, you can type the filename like this:

```
MAKEQUES QUES1 ENTER
```

Other command line options are available. Type

```
MAKEQUES /? ENTER
```

or review Chapter 8, *Quick Reference* for detailed information.

Mail gateways

One of the more useful and interesting aspects of BBS communication is the ability to share public message conferences among a local, regional or even international network of Bulletin Board Systems. This is known as *Echomail*.

Wildcat! is compatible with a number of different Echomail systems, and directly supports QWK-style message networking. No additional software is required. Other Echomail systems that work with *Wildcat!* include Fidonet, PCRelay/PostLink, and UUCP, and each require the purchase of one or more additional programs.

Most Echomail networks are organized around a "tree" structure. A single BBS acts as a hub for the entire network, with one or more "nodes" calling the hub regularly to send and receive messages. Larger networks may have two or more levels, with regional hubs sending and receiving Echomail from nodes and transferring that mail to and from the main hub one or more times each day.

QWK mail

QWK mail is based on a message exchange format originally developed by Mark "Sparky" Herring. It is now supported by most kinds of BBS software including *Wildcat!*, through the same off-line mail program callers use to download messages.

wcECHO imports "network status" mail packets downloaded from a QWK-compatible mail door, including *wcMAIL* for *Wildcat!* 4, *Tomcat* for earlier versions of *Wildcat!*, QMail, Rosemail and CamMail for PCBoard, Mainmail for GAP, and many others.

An important note about QWK Echomail and duplicate user names

Because of limitations in the way QWK mail packets handle user names and addresses, there is no reliable way to ensure that mail addressed to a caller on your BBS will go to the right person unless each user on your

BBS has a unique name. QWK mail does not support duplicate user names.

If you have opted to allow duplicate user names in *MAKEWILD*, *wcECHO* will be unable to import QWK mail packets.

Adding a host

Your first step is to set up your user account at your host's BBS to send and receive network mail. That generally means you will need to log on to the host with your network mail user account, and visit the mail door to select conferences and set high message pointers — you probably don't want to download every message in every conference the first time you call.

The next step is to change to your *Wildcat!* home directory, and run *MAKEECHO*. From the main menu, select QWK/REP Network.

The QWK Hub Setup screen will be blank at first. To add a new entry, press INS. The Edit Host screen is similar to data entry screens you've seen in other *Wildcat!* utility programs.

Option	Notes
Host name	This is the name of your host's QWK packets, for instance MUSTANG or EXECNET.
File attachments	To limit the size of attachments your callers can send, set the value in the Attach Limit field to the maximum file size in bytes.
QWK packet path REP packet path	These are the directories *wcECHO* will use for incoming and outgoing mail packets.
Work Directory	This is the directory *wcECHO* uses for temporary files while it is importing and exporting messages. We recommend not changing this path from the default setting. Do *not* keep other files in your *wcECHO* work directory — they will be deleted whenever *wcECHO* processes mail.

Option	Notes
Packer configuration	This selection should match the packer type you selected in your host's mail door. In most cases this will be PKZIP. The selections in this popup correspond with the packers you have defined in *MAKEWILD* for your own mail door settings, so any message packer you select from your host, will need to be configured for your own mail door as well.
Atfilter	If Atfilter is set to Yes, *wcECHO* performs the following conversions: The ANSI escape character (027 decimal) is converted to a left quote (`) character. *Wildcat!* @###@ and PCBoard @X## color macros are converted to their ANSI equivalents where possible, with the escape character translated to a left quote (`) character. System macros such as @USER@ are converted to lower case: @user@.
wcECHO Tag	*wcECHO* normally precedes the tagline information you enter with the text "*wcECHO* 4.0". If you want to suppress the program name and version information, set this option to No.
Append mode	*wcECHO* normally overwrites existing REP packets when you export new replies. Change this option to No if you want to append new replies onto an existing REP packet. If you turn Append mode on, don't forget to delete successfully uploaded reply packets to avoid duplication of messages.
Origin tags	Most public Echomail networks require an origin tag at the end of each message to identify the name and location of the BBS where the message originated. You can define more than one set of origin tags for each hub — useful for hubs that offer several distinct networks each requiring their own origin tags.

Defining Conferences

If you haven't already defined your network conferences in *MAKEWILD*, do so now. Press F10 to save your QWK host settings, then press ESC to exit *MAKEECHO*.

Copy the packet to the directory you will use for incoming network mail packets, and extract the CONTROL.DAT file with the following command:

```
PKUNZIP MUSTANG.QWK CONTROL.DAT
```

Substitute the name of the actual QWK packet if necessary. *MAKEECHO* will use the information in this file to help you match up your local conferences with the conferences at your host.

Start *MAKEECHO* again, and go back to QWK Host Setup. Press ENTER to edit the host you created, then press F4 to edit your conferences.

Just like the hub list, the conference list will be empty to begin with. Press INS to add the first conference to the list. Select your *Wildcat!* destination conference first: press F2 to pop up a list of *Wildcat!* conferences. Make your selection, then press F10. Next, select the remote conference. Press F2 again to see a list of conferences at your host, from the CONTROL.DAT file in your mail packet.

To search any conference list in *MAKEECHO*, pop up the list and press F4. Enter the text you want to search for and press ENTER to begin searching. If the first occurrence is not the one you're looking for, press F5 to continue the search.

Note that *MAKEECHO* will warn you if you try to assign the same *Wildcat!* conference to more than one remote conference. This helps prevent duplication loops and misposted messages.

Next, select the origin tag you want to use for this conference. Once again, press F2 to pop up a selection list.

The final selection on this screen is to allow private mail. If you change this option to **Yes**, private messages as well as public messages will be exported from this conference.

Private mail is supported to varying degrees by other Echomail network software, and may be allowed or disallowed by network regulations as well. Do not rely on private Echomail to transmit sensitive or confidential information, or for messages that must reach their destination.

If you choose not to allow private mail to export from a conference, you can still override this setting for specified users on your BBS by using a name translation option to export private messages. Review the "Translations" section below for examples.

Press F10 to save your changes and return to the Edit Conferences screen. Add the rest of your conferences, then press F10 to return to the host setup menu.

Translation

If you need to translate or filter any incoming or outgoing user names, or reject all messages from a particular user name, press F9 to pop up the Translation screen. Each host has its own set of translation tables, and translations apply to every conference for this host.

The procedure for adding names to the translation table follows the same conventions as many other *Wildcat!* operations. Press INS to add an entry to the list, or highlight and press ENTER to edit an existing entry.

Wildcat! **Name** and **External Name** are the names *wcECHO* should act on for translation. One or the other may be left blank, depending on the type of translation. *Wildcat!* Name is the name that should appear on messages imported to your BBS, while External Name is the name that should appear on messages exported from your BBS.

Option	Notes
Translate Import	If the Sysop of your host BBS uses "Sysop" on his BBS, rather than using his real name, enter the real name under ***Wildcat!* Name,** and enter "Sysop" under **External Name.** Select **Translate Import** as the translation action. Messages to and from "Sysop" that arrive in your mail packets will be translated automatically to the host Sysop's real name.
Translate Export	If, on the other hand, you use the name "Sysop" instead of your real name, you will need to translate outgoing messages to your real name to avoid the same situation happening at your hub. In this case, enter "Sysop" under ***Wildcat!* Name**, and your real name under **External Name.** Select **Translate Export** as the translation action.
Translate Both	If you have a caller on your BBS with the same name as another user on the echo, enter "Bob Jones" in the ***Wildcat!* Name** field, "Bob J. from Bakersfield" in the **External Name** field, and select **Translate Both** as the Action. This name translation will be transparent to the caller. The "from" name on any messages he posts will be translated to "Bob J. from Bakersfield", and any replies will be translated back to "Bob Jones" when they arrive at your BBS.
Trashcan Incoming	If you never want to see incoming messages from a network user, enter the user's name under **External Name.** You can leave the ***Wildcat!* Name** blank if you wish. Select **Trashcan Incoming** as the translation action.
Trashcan Outgoing	If a local caller's messages should never be exported to the network ,enter the caller's name under ***Wildcat!* Name.** You can leave the **External Name** blank if you wish. Select **Trashcan Outgoing** as the translation action.
Allow Private	This setting allows the user named here to override the "allow private mail" setting for conferences associated with this hub.

Picking up the mail

Now that you have all your conferences configured and any necessary name translations entered, you're ready to begin picking up mail. This is a three-step procedure. First, run *wcECHO* to export your outgoing mail and create a REP packet for your host.

Second, start your communication program and call your host, log on using your net Sysop user account, and open the host's mail door. Download a new QWK mail packet, upload your REP packet, and disconnect.

Finally, exit from your communication program and run *wcECHO* to import your new QWK mail packet, then restart *Wildcat!*.

Exporting mail

wcECHO is a command line utility to import and export mail. On the command line, you specify whether to import or export mail and the name of the host packet to read or create.

A proper command line to export mail to a host named MUSTANG looks like this:

```
WCECHO EXPORT HOST:MUSTANG
```

wcECHO will scan your message conferences, and copy any new messages into a REP packet. It exits to DOS automatically when the operation is complete.

One additional option is available when you export mail:

Option	Notes
Verbose	If you want *wcECHO* to log its activity in detail, including the message header and conference information for each message it imports or exports, add the word VERBOSE (or its abbreviation "V") to the end of the command line, like this: `WCECHO E H:MUSTANG V`

Notice that you can abbreviate the words "Export", "Host" and "Verbose" to the single letters "E", "H" and "V".

Without the "Verbose" switch, *wcECHO* will log only the total number of messages imported or exported in each conference.

wcECHO exits with the following errorlevels, which you can test for in a batch file:

Errorlevel	Notes
0	Normal termination
1	Fatal error
10	Messages were exported.

Connecting with your host

wcECHO imports and exports mail only — it does not place the outgoing phone call for you. To connect with your host and exchange QWK mail, you need a communication software program to dial your modem and transfer the files.

Although any quality communication software program will work, we recommend *QmodemPro* — a good selection of scripts are available from MSI HQ to help you automate your mail runs on a variety of different kinds of BBSs.

Importing mail

A proper command line to import mail to your BBS from a host named MUSTANG looks like this:

```
WCECHO IMPORT HOST:MUSTANG
```

You can use single-letter abbreviations for the command line options. The following command line is also valid:

```
WCECHO I H:MUSTANG
```

wcECHO will unpack the QWK packet into the work directory, and imports messages into each conference. When it has finished importing, it exits to DOS without further action on your part.

wcECHO offers two additional options for importing a QWK mail packet.

Option	Notes

Flag	By default, *wcECHO* will notify users of incoming mail addressed to them. Since *wcECHO* needs to open the user database and check each user record as it imports mail, this can slow down importing, particularly if few of the messages are likely to be addressed to callers on your BBS.
	Callers will still receive messages addressed to them if *wcECHO* does not update their user information, but they will not be notified of new mail when they logon to *Wildcat!*
	A sample command line that imports mail from MUSTANG.QWK but does not notify local users of new mail would look like this:
	`WCECHO IMPORT HOST:MUSTANG FLAG`
	The abbreviated version looks like this:
	`WCECHO I H:MUSTANG F`

Checking	Configuration errors on other systems can sometimes cause mail to be recycled, and can result in duplicates of existing messages in your network mail packets. *wcECHO* and *wcMAIL* create and maintain a set of duplicate message checking files with the extension .CRC, one for each conference, in the path for message files. If a new message is an exact duplicate (including to/from names, message text and origin lines), *wcECHO* will reject the new message.
	If you are not concerned about importing duplicate messages, you can speed up mail imports by turning off duplicate checking. Here's an example:
	`WCECHO IMPORT HOST:MUSTANG CHECKING`
	and the abbreviated version:
	`WCECHO I H:MUSTANG C`
	Note that you can use these options, Verbose, Flag and Checking, in any combination, in any order

Resetting high message numbers

wcECHO has an additional switch to reset high message numbers to the highest message number in each conference associated with a hub. The proper command line is

```
WCECHO R H:MUSTANG
```

wcECHO said my mail packet doesn't have net status. How do I fix that?

A "network status" mail packet contains additional information added by the host's QWK-packet mail door. This information is used to control what conferences within a mail packet are authorized to be echoed to another BBS. This is a security feature designed to prevent unauthorized copying of message conferences from one BBS to another.

If *wcECHO* reports that a mail packet does not have net status, please ask the sysop of your host BBS to turn on network access for the conferences you want to echo.

wcMAIL as a host

wcMAIL generates net status QWK packets recognized by *wcECHO* and other QWK-REP mail tossers capable of correctly recognizing a net status mail packet. This allows *wcMAIL* to be used as a network mail "host", so other Bulletin Board Systems can share your message base.

Here's how a typical network mail transaction works: Imagine yourself as the "host" of your network, with one or more "nodes" calling for mail.

You've set up a user account in *Wildcat!* for "Fred's BBS" with a security profile that has Net Status Sysop access. The Sysop of "Fred's BBS" now logs on, enters the mail door, and downloads a QWK packet.

After Fred successfully downloads a packet, he now uploads the reply packet he prepared before calling. This reply packet consists of new messages exported from his BBS, which *wcMAIL* unpacks and inserts into your message database.

The Sysop then disconnects from your BBS, and processes his newly-received mail packet with the network mail software for his type of BBS software. The messages are inserted into Fred's BBS message base(s), Fred the Sysop restarts his BBS, and waits for the next mail processing event to roll around.

Just before Fred's next call, he exports all the new mail he and his callers have left on his BBS into a REP packet. Export complete, he calls your BBS again, enters the *wcMAIL* mail door, uploads the replies, and downloads a fresh QWK packet.

wcMAIL command line options

wcMAIL is normally executed directly by *Wildcat!* although you can run it as a stand-alone program with the user name or ID number, followed by the proper command line switches. For instance, to download a local QWK mail packet for a user named JIM HARRER, use the following command line:

```
WCMAIL JIM HARRER /DOWNLOAD
```

Valid command line switches are:

Option	Notes
/DOWNLOAD	Download a QWK packet
/UPLOAD	Upload a REP packet
/CONFIGURE	Configure user settings
/PRESCAN	Generate a prescan file for user
/OVERWRITE	Overwrite existing QWK packets
/RENAME	Rename duplicate QWK packets

You can "prescan" QWK packets for frequent callers, including network Sysops, in a system event. The next time they call the BBS and use *wcMAIL*, the caller will be prompted to download the prepared QWK packet, without having to wait for *wcMAIL* to scan conferences for new

mail. A proper prescan command line for a user named MUSTANG BBS would look like this:

```
WCMAIL MUSTANG BBS /PRESCAN
```

You can execute *wcMAIL* as many times as you want for prescanned packets — enter each user name on a separate line like this:

```
WCMAIL MUSTANG BBS /PRESCAN
WCMAIL ANOTHER BBS /PRESCAN
WCMAIL THELAST BBS /PRESCAN
WCMAIL JOE USER /PRESCAN
```

Managing the *wcMAIL* network user database

Under ordinary circumstances, *wcMAIL* will only send private mail addressed to user names matching the user name of the caller downloading the mail, unless that caller has Sysop access. This makes network transfers of private messages awkward, as it would be necessary for a network mail caller to have access to ALL the private mail on your system in order to transfer private mail to his own users.

wcMAIL solves that problem by keeping a database of user names. If a caller on another BBS enters a message, and that message is uploaded to *wcMAIL* by a net status caller, *wcMAIL* records the caller's name and the user name of the originating node.

For instance, if a caller named STEVE CRIPPEN posts a message which is then uploaded to MSI HQ BBS in a REP packet by a net status caller named KAOS BBS, Steve's name and the name of the net status caller would automatically be recorded in the network user database, along with the node his message originated from. If a caller leaves a private message for Steve Crippen on the MSI HQ BBS, *wcMAIL* will add that message to the next net status QWK packet downloaded by KAOS BBS.

MAKEECHO gives Sysops the ability to view and edit names in the network user database, if desired. This may be useful if you need to enter names into the database before the connecting node has made a transfer, or if you need to delete names or nodes from the database.

You can edit the network user database from the QWK/REP Network screen. Press F3 to pop up the editing screen. Use your PG UP and PG DN keys to scroll through the list. The node names are listed first, followed by user names. You can add and delete names, and generate a report.

The report provides information on hubs and user names, duplicate names and user list by node. This information may be useful to help you track down a source of duplicate messages.

Fidonet

Fidonet is one of the oldest and largest volunteer BBS networks in the world. It has its own special variety of mail handling software, and while a number of different programs are available, they all conform to the basic technical specifications for Fidonet mail.

Fidonet technology uses an addressing scheme of zones, networks, nodes and points to route mail from place to place, and the transfer of mail is entirely automated. You can send and request files over Fidonet, and you can use gateways from Fidonet to send and receive mail from the Internet.

The culture of Fidonet is rich, complex, and sometimes baffling to the newcomer. No less complex is the procedure for obtaining and setting up the necessary software, and obtaining a Fidonet node number. We will present an overview of Fidonet here, but for detailed information and specific how-to instructions, it's best to seek the advice of someone in your area who is already experienced with the subject.

What's the difference between Netmail and Echomail?

Fidonet handles two different types of mail.

Netmail messages may be public or private, and are usually addressed to a person at a specific BBS or dedicated mail system. Although private messages are supported by some networks, the privacy of the material is not guaranteed.

Echomail is slightly different from Netmail. It consists of a series of public messages gathered from many other BBSs and mail systems across the

country who share a common message topic, such as the International *Wildcat!* Echo. Each night new messages from every system are sent to all others, and each system receives the new messages from every other participant in the echo. All echo members end up with a common message pool which is kept current to within a few days. Echo messages are usually all public.

How do I join Fidonet?

To join Fidonet, you must obtain and read POLICY4.TXT, a text file explaining some of the rules, organization and culture of the network. You can download this file from MSI HQ BBS as POLICY4.ZIP. Once you have read POLICY4, you must then set up your mail software and send a Netmail message to your local net/echo coordinator requesting a node number, thus demonstrating that you know how to use the software.

To connect your *Wildcat!* BBS with Fidonet, you need two programs: a front end mailer and a mail tosser. The front end mailer program answers the phone in place of *Wildcat!*. It detects whether an incoming call is a human caller or another Fidonet node making an automated mail transfer, and routes the call accordingly, either transferring the caller to *Wildcat!*, or receiving the incoming messages. Meanwhile, the mail tosser processes incoming and outgoing messages to and from your *Wildcat!* message conferences.

Front end mailer programs and mail tossers are available from a variety of sources, and demonstration versions can be downloaded from the MSI HQ BBS. Four front end mailer programs that work with *Wildcat!* are **BinkleyTerm**, **Front Door**, **InterMail** and the **D'Bridge** Electronic Mail System.

Setting up a front end mailer

In order for a front-end program to pass control to the BBS when a non-mail call is received, there must be a method of informing *Wildcat!* of the caller's baud rate. This is accomplished through the use of a command line argument in the format:

```
WILDCAT /B 14400
```

Any baud rate and error correction string entered in the Modem Settings section of *MAKEWILD* or *wcMODEM* can be passed to *Wildcat!*. If the caller is making use of a "reliable" connection, the number is followed immediately by the letters MNP. If the baud rate is passed on the command line to *Wildcat!*, it will connect to the already existing caller and begin the logon process. *Wildcat!* will display a list of valid connect speeds if you type

```
WILDCAT /? ENTER
```

at the DOS prompt.

After the call is completed *Wildcat!* automatically exits, returning control to the front end program. This automatic exit *always* takes place when *Wildcat!* is started with the /B command line switch.

Event management

Since there is no way to ensure that *Wildcat!* will be operational at any particular time of day, you must run system events from your front end mailer rather than from *Wildcat!* if they are to be assured of taking place on schedule. To do this smoothly, *Wildcat!* needs to be informed of any upcoming events scheduled by your mailer.

To do this, your mailer passes the time in minutes until the next scheduled event to *Wildcat!* as a % variable. *Wildcat!* uses this number to adjust the caller's time allowed on the system during his call, and treats it like a hard event. The event time follows the baud rate and error correction information, separated by a space:

```
WILDCAT /B 2400MNP 65
```

The above example indicates that the caller being passed to *Wildcat!* is connected at 2400 baud, is using MNP (or similar) error control, and the front-end mailer needs to begin a mail processing event in 65 minutes.

The time parameter is treated as a hard event by *Wildcat!* to ensure it is observed.

Setting up a mail tosser

Your mail tosser takes incoming mail packets from the front end program, and imports them into your *Wildcat!* message conferences. Several Fidonet mail tossers for *Wildcat!* 4 were in development at the time this manual was printed. You can find up to date information on the MSI HQ BBS. Consult the documentation for your mail tosser for specific information on setting it up with your front end mailer program and *Wildcat!*.

Configuring *Wildcat!* for Fidonet mail

Setting up *Wildcat!* for Fidonet mail is fairly simple. Run *MAKEWILD* and define conferences for each echo topic you want to offer, plus a separate conference for private Netmail.

Pay close attention to the conference message type and conference toggles. Fidonet Echomail and Netmail have specific requirements concerning the use of high ASCII characters and public versus private mail.

Mail type	Conference message type	Conference Toggles
Echomail	Normal messages, public only	Set all toggles to NO
Netmail	Fido Netmail messages, private only	Set all toggles to NO

PostLink

PostLink software was developed for RelayNet International Message Exchange (RIME), and is also used on some other Echomail networks. PostLink works with any kind of BBS software, and uses a Universal Text Interface or "UTI" driver to translate messages from its native format to BBS-compatible messages.

You can order PostLink software directly from the author, using the order form provided with the current RIME network information package. UTI drivers for *Wildcat!* are available for download from MSI HQ BBS. *Wildcat!*-compatible UTI drivers are installed in your *Wildcat!* home direc-

tory. Contact the MSI HQ BBS for up to date information on obtaining PostLink software, RIME information files, and UTI drivers.

Refer to the documentation for PostLink for information on how to install and use the UTI drivers.

Usenet/Internet/MHS

The add-on program *wcGATE* is designed to provide a gateway for Internet e-mail, Usenet newsgroup articles and MHS (NetWare Message Handling System) mail. With *wcGATE*, you can provide an Internet mailing address for all your callers, and link your BBS to any of several MHS-compatible LAN e-mail packages.

You can find more information about *wcGATE* in the appendix at the back of this manual, or contact MSI Sales at 800-999-9619 or 805-873-2500.

Subscription systems

Wildcat! supports two basic types of subscription formats for paid access: calendar based subscriptions and cost per download.

Charge per calendar period

The first method of charging for access makes use of the expiration date option in each user record. Use this method to charge for system access on a calendar period basis such as $5 per month or $75 per year. You can enter an expiration date in each user record, or apply the same expiration date to a group of callers by entering it in a security profile.

Each security profile has an Expired Profile Name as part of the definition, and the date of each call is compared to the expiration date.

The caller is allowed to proceed with no messages or interruption if the expiration date is more than 60 days away. On the first call within 60 days of expiration, *Wildcat!* displays WARN60.BBS to the caller. This file may contain information on how to renew a subscription, and could include the @Code for the number of days until expiration.

On the first call within 45 days of expiration, *Wildcat!* sends the display file WARN45.BBS to the caller, and another at 30 and 15 days (WARN30.BBS and WARN15.BBS). Nothing is sent to the caller if these files do not exist in the display file directory. On the next call after the profile expires, or the caller's expiration date passes, *Wildcat!* changes the caller's security automatically.

Charge per file

A second method of charging for system use is to charge a number of credits for file downloads. Each file record has a field called "Cost" that allows the Sysop to specify the charges deducted from the user's account balance each time the file is downloaded. Each file can have a different cost level, and this method can be combined with either of the other two if desired.

If a caller does not have enough credits in his user account to cover the cost of a download, it is denied.

You can also use external programs or *wcCODE* applications to deduct credits for other BBS activities from a caller's account balance.

wcCODE programs

Wildcat! can run compiled applications written in *wcCODE*, the development language for *Wildcat!* BBS. While the *wcCODE* package is required if you plan to write your own scripts, any *Wildcat!* version 4 BBS can run pre-written *wcCODE* programs.

wcCODE programs have a variety of uses. For instance, you can replace an internal *Wildcat!* menu command with a compiled program that performs additional functions.

You can replace or enhance internal *Wildcat!* program functions as well. For instance, you can replace the internal logoff sequence, which simply logs off the caller, with one that prompts the user to leave a comment to the Sysop before disconnecting.

You can find out more about *wcCODE* and other *Wildcat!* accessories in the Appendix at the end of this book, or by calling MSI Sales at 800-999-9619 or 805-873-2500.

7 - Multiline setup

A little inaccuracy sometimes saves tons of explanation.

Saki (Hector Hugh Munro)

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Introduction

A multiline BBS is one that allows two or more callers to use the BBS at the same time. *Wildcat!* is a network-compatible multi-user BBS program, which means each caller is connected to a separate "machine", whether it's a real PC workstation connected to a Local Area Network, or a virtual machine running in a memory partition on a standalone PC.

These "machines" each run *Wildcat!* from a single directory on a hard drive, and communicate with each other through shared data files. This means each machine can shell to DOS to run external programs or "doors", without affecting callers logged on to other machines. It also means that LAN users can log on to *Wildcat!* directly from their LAN workstations, by executing *Wildcat!* from its home directory.

Smaller multiline systems (8 lines or fewer) can be run economically on a 386 or 486 PC multitasking under DESQview. For really large multiline systems, you can combine both approaches by connecting multitasking workstations to a Local Area Network. The Multiline Platinum version of *Wildcat!* allow up to 250 callers to use the BBS at the same time.

Local Area Networks (LAN)

A network consists of PC workstations connected by network cable, interface cards and software to a file server, that has hard drives, printers and other resources it shares with the workstations. *Wildcat!* works well with networks such as Novell NetWare and NetWare Light, LANtastic, 3COM, Banyan Vines, and any other Local Area Network operating system that uses DOS SHARE as its file sharing mechanism.

Each LAN workstation, or "node", runs its own copy of *Wildcat!* that is loaded from a network server's hard disk. Some network configurations use a *dedicated* server, one that only performs LAN management functions. Others, known as "peer-to-peer" networks, can share devices located on any workstation also designated as a server.

Regardless of the type of network used, only one copy of the *Wildcat!* program and support files needs to be kept on the disk. This one copy is

loaded by each workstation running a *Wildcat!* node. All workstation nodes share a common set of message, file, and user databases.

Multitasking — the "virtual network"

You can also create a "virtual network" in memory on a standalone PC by running a multitasking operating environment such as DESQview, Windows or OS/2. Each DOS window you open runs *Wildcat!* from a shared directory and communicates with its own serial port and modem. You can open as many DOS windows as your hardware configuration and system resources permit.

You need at least a 386 PC to run a standalone multiline BBS as this is the only way to get the CPU speed and memory management *Wildcat!* needs to multitask smoothly.

Slave cards

A slave card is actually a PC on a card with a CPU, serial port, keyboard and monitor ports. Each slave card is connected to a modem and phone line, and plugs into an expansion slot inside a host machine, which acts as a server. The slave cards load *Wildcat!* from the server's hard drive.

One reason to use slave cards rather than DESQview or multiple PCs is when a multi-node dial-in system is to be added to an existing Novell network. Because each node logs into the network separately, remote callers can dial in, drop to DOS, and access their own network user accounts at full speed, without interfering with other callers. However, the cost for this setup can easily exceed the cost for a DESQview system or a LAN setup with separate PCs for each node.

Local node for Sysop logons

The single line version of *Wildcat!* has limited multiline capability — a local-only node for Sysop logons and maintenance. This node, called "Node Zero", can be used for local logons or maintenance while the BBS is running.

You set up the local node in the Single Line version in the same way as any other multiline installation, using a LAN or a multitasker. We'll explain how to do it in the following sections.

System Requirements

It is strongly suggested that you call MSI Tech Support for up-to-date compatibility information BEFORE purchasing any multi-port serial hardware not mentioned here.

2 to 4 lines on one PC using standard serial ports

- You need 1 modem and 1 voice grade telephone line for *each* incoming dial-up connection. Ask your phone company for information on "call hunting" or "rotary" service if you want one phone number to ring all BBS lines.
- External modems require "high speed" serial cards with NS16550 UARTs and selectable IRQs for *each* port. Shared IRQs are *not* supported.

  Note that many "multi I/O" cards have 8250 or 16450 UARTs and are not reliable for high speed operation, and cannot be configured for non-standard IRQs and COM ports.

  Many PCs have one or more serial ports built into the motherboard. In most cases these ports are not equipped with 16550 UARTs, and are not suitable for high speed operation. You may need to disable these internal ports and substitute a high speed serial port card.
- Internal modems *must* have jumpers or dipswitches to select non-standard IRQ assignments if you plan to use them for COM 3 or COM 4.
- 386SX or DX or higher CPU. Minimum 20 to 25 MHz for two lines, 386/33 or 486 strongly recommended for more than two lines.
- Minimum 4 megabytes of RAM for up to 2 lines, 4 to 8 megabytes RAM for up to 4 lines.
- A multi-tasking operating environment. DESQview 386 from Quarterdeck Office Systems is the recommended choice, and has the best level of internal support in *Wildcat!*. Microsoft Windows, version

3.1x and OS/2, version 2.1 are also supported to a lesser degree. Novell DOS 7 is not recommended.

- The number of incoming lines is limited by the number of IRQs available for assignment to COM ports 3 and higher. In most cases 4 is the maximum number of ports you can assign on one machine.

2 to 8 lines on one PC using intelligent multiport serial boards

The requirements are similar to the 1-4 line system described above, with the following exceptions:

- In addition to regular serial port cards, *Wildcat!* also supports "intelligent" multi-port cards, either directly or through a Fossil Driver. The following intelligent cards are supported:

Vendor	Model	Direct	Fossil	Notes
DigiBoard	DigiChannel PC/8e	Yes	Yes	Use COMM-DRV fossil
DigiBoard	DigiChannel PC/8i	Yes	Yes	Use COMM-DRV fossil
Arnet	Smartport	No	Yes	Use COMM-DRV fossil
Arnet	Smartport/2	No	Yes	Use COMM-DRV fossil
GTEK	PCSS-8FA	No	Yes	Use COMM-DRV fossil
GTEK	PCSS-8FX	No	Yes	Use COMM-DRV fossil
Boca Research	BB1610	No	Yes	Use COMM-DRV fossil
Boca Research	BB8002	No	Yes	Use COMM-DRV fossil

External modems are required for intelligent multi-port cards.

- 486SX or higher CPU.
- Minimum 4 megabytes RAM for up to 4 lines, 8 to 16 megabytes RAM for up to 8 lines.
- The number of incoming lines is limited by the number of file handles available from DOS. In most cases 8 is the maximum number of tasks you can run reliably on one machine.

Can I add another DigiChannel 4-port card to increase my P60 to 12 lines?

Although the CPU could probably keep up, there would not be enough DOS file handles for 12 unique *Wildcat!* sessions at the same time. Remember, each copy of *Wildcat!* keeps up to 20 files open, and 12 lines, including the 20 extra file handles required by the first version of *Wildcat!* running would exceed the 255 file DOS limit.

2 or more lines on multiple PCs on a Local Area Network

While *Wildcat!* has direct support for Novell NetWare, it will also run well under other LAN operating systems that use DOS SHARE as their file sharing mechanism, including Banyan Vines, LAN Manager, 3COM, and many others. Peer-to-Peer networks such as LANtastic and Personal NetWare/NetWare Light also work well with *Wildcat!*.

"Zero-slot" networks that use a serial or parallel interface rather than true network interface cards do not offer the necessary transfer speeds for good performance, and are not recommended.

- Refer to the documentation for the LAN operating system you select for guidance on selecting a file server and other LAN hardware.
- An 80286 or 80386SX workstation is adequate if you want to run one modem and phoneline for each PC. To run a LAN workstation under DESQview or other multi-tasking environments, review the multi-tasking configurations in previous paragraphs for additional requirements.
- We strongly recommend using one or more dedicated workstations for incoming modem connections rather than running *Wildcat!* on workstations that also perform other tasks.
- Modem sharing devices such as NACS, NCSI, NASI, and other Interrupt-14-driven modem pools are not supported. Modems must be connected directly to the workstations running *Wildcat!*.

Slave cards

COMMVision, Inc. provides a workstation-on-a-card solution for operation in a Novell environment. The RemoteStation card is a 386 or 486 PC that can be placed directly on the bus of a Novell server, or attached to a bridged server to handle all BBS activity. Multiple RemoteStations installed in a bridged server offer an integrated alternative to adding multiple PCs and monitors to a network.

The Remote Station cards are configured to operate exactly like a standard workstation in a LAN environment. Each has its own boot "disk" on the network, and can set environment variables as needed. These cards are tested and certified for use with *Wildcat!* by Mustang Software, Inc.

A bank of Remote Station cards in a dedicated bridged system offers the optimum in multi-node access in a single chassis. Each node can be controlled and viewed individually from any workstation using any of several utility programs. COMMVision, Inc. 510 Logue Avenue, Mountain View, CA 94043. Phone (415) 254-5720, Fax (415) 254-9320.

Setup

Before you begin setting up a multiline BBS, you should have *Wildcat!* up and running properly as a single line system in non-network mode. Once you have a single line running, you can then begin adding additional nodes.

Once you have installed the necessary hardware, your next step is to begin configuring the software for multiline operation.

How it works

A multiline BBS works by sharing a common set of data files, node information and control files among all copies of the program running at any particular time.

The terms "line" and "node" are used interchangeably. Each node on a multi-node system consists of a PC (either a real computer on a LAN), or a virtual machine in a multitasking environment) running *Wildcat!* in memory.

Each copy of *Wildcat!* communicates with the others through a control file called NODEINFO.DAT. The Sysop can view activity logs from other nodes, log off other callers and take nodes down for maintenance, all from the Sysop's screen.

Wildcat! also shares its message, user and file databases among all active nodes. If a caller saves a message or uploads a file, the database is updated and the new information is available to other callers almost instantly. *Wildcat!* will prevent more than one node from updating the same record in a database at the same time. It temporarily locks a record or a file until the update is complete, then releases it to other nodes.

This file locking and unlocking takes place very rapidly, and is rarely perceptible to callers. This is one area where system performance can make a difference — fast hard drives and efficient networks allow more rapid updates to data files, and less chance of slowdowns on a large system.

In order for all this to work properly, each copy of *Wildcat!* must be started from a single "home" directory. By default, this is

```
C:\WILDCAT
```

You can install *Wildcat!* on a different drive or partition if you prefer, but for the sake of consistency, we recommend using the default directory names and paths.

Work Directories

Wildcat! creates a number of directories below the "home" directory. We've already reviewed several of these in Chapter 3, *Wildcat setup*, in the section on *MAKEWILD*. You can give these directories any name and path you like, although in most situations the default names and paths are probably best.

Wildcat! also creates a work directory in the home directory, called

```
C:\WILDCAT\WCWORK
```

The name of this directory must not be changed, and it must be located in the home directory. Under this directory are the node directories. A 4-node BBS would have a work directory structure like this:

```
C:\WILDCAT\WCWORK\NODE1
C:\WILDCAT\WCWORK\NODE2
C:\WILDCAT\WCWORK\NODE3
C:\WILDCAT\WCWORK\NODE4
```

Wildcat! also creates and removes temporary subdirectories under the node directories —you may find directories with names like "EP", "TEMP", or "WCTEMP", and perhaps others. *Wildcat!* uses these directories to create and store temporary files such as mail packets, downloads in progress copied from CD-ROM drives, and uploads in progress using external protocols Multiline:.

You will remember from reviewing earlier chapters that you can store node-specific batch files (with the extension .RUN) in the node directories, to override the default batch files stored in the Batch directory. Unless you

use environment variables to specify another preference, *Wildcat!* will create your local QWK mail packets in the node directory, and expects to find local REP packets there as well.

Environment Variables

The environment is an area in memory used by DOS to store information for other applications. You assign information in an environment variable through the DOS command SET. This command can be typed from the DOS command line, or you can add it to a batch file. The syntax for assigning an environment variable is:

```
SET variable=string
```

where *variable* is the variable name used by a program and *string* is the value to be assigned to the variable. If a particular variable already exists in the environment, it is replaced with the new setting. If you specify just the variable name and the equal sign it removes any previous setting of that variable.

Wildcat! uses environment variables to override the default settings for COM port, base address, modem file and node ID number. You can find a list of all *Wildcat's* environment variables in Chapter 8, *Quick Reference*.

Environment variables are accessible from any DOS process. Any variable can be included as part of a batch file by calling its name between two % signs. For example, suppose you have used

```
SET WCPORTID=2
```

to override the default of COM1, and want to pass the port number to the program AVIEWCOM.EXE in your VIEWCOMP.BAT file. You can reference it easily by saying:

```
AVIEWCOM %1 COM%WCPORTID%
```

In the above example %1 is the filename passed by *Wildcat!* and the second item is the COM port, which AVIEWCOM expects in the format

COM1, COM2, etc. In the example the %WCPORTID% is translated as 2, which is exactly what the program expects to receive (COM2).

Increasing the size of your DOS environment

Unless you specify otherwise, DOS assigns only 128 bytes to the environment. Configuration settings such as your path and prompt statements all use environment space, and unless you increase the amount of environment available, you can run out.

If you receive the DOS error message "Out of Environment Space" you can increase your DOS environment space by adding the following command to your CONFIG.SYS file:

```
SHELL=C:\COMMAND.COM C:\ /e:512 /p
```

This example is for DOS version 5 and higher — earlier DOS versions use a slightly different syntax. This command loads the command processor COMMAND.COM permanently into memory, and increases your environment to 512 bytes.

Updating your configuration with *MAKEWILD*

Run *MAKEWILD*, and go to General Information. Near the bottom of the "Database Information" screen are three options: Network type, Node ID, and Auto determine node ID.

Network Type

This is where you "turn on" multiline mode in *Wildcat!*. There are three choices here. The default is "No network", which means *Wildcat!* is not allowed to share its files. The correct choice for Novell NetWare is "Novell". For all other networks, DESQview and Windows, choose DOS share.

How do I know when to load SHARE.EXE?

DESQview and some peer-to-peer LAN operating systems require you to load DOS SHARE from your CONFIG.SYS or AUTOEXEC.BAT files.

Some, however, emulate SHARE.EXE by substituting their own file sharing code in the network drivers. Consult the documentation for your LAN operating system to see if you need to load SHARE.EXE.

The installation procedure for many of these systems will modify your CONFIG.SYS or AUTOEXEC.BAT files and install SHARE.EXE with the correct command line parameters.

Here is example command line loading SHARE:

```
SHARE /F:4096 /L:60
```

This tells DOS to load SHARE and to allow 4K for filename allocation and 60 file locks.

Should I let my memory manager load SHARE.EXE high?

Probably not. The amount of DOS memory used by SHARE is relatively small, and some problems have been reported when it is loaded high. It is therefore strongly recommended that SHARE never be loaded high.

Node ID

Wildcat! uses a system of node ID numbers to create unique work directories for each node, and for some internal file sharing procedures.

There are two ways to assign node ID numbers in *Wildcat!*. The first is to save the node ID number in a DOS environment variable, which *Wildcat!* refers to whenever a node updates a file. The second is to let *Wildcat!* assign node ID numbers automatically as users log onto the system. You can even use a combination of the two, so that some node IDs are fixed, while others "float".

If no WCNODEID variable is found in the environment and automatic node assignment is not enabled, *Wildcat!* uses the default from *MAKEWILD*.

Auto-determine node ID

Rather than assigning specific node ID numbers to each network node, you can let *Wildcat!* assign the next available node ID to each node as it is activated. Unless you are installing *Wildcat!* on a LAN with a large number of local workstations, we recommend leaving this set to "No".

Most multiline installations use at least some node-specific batch files for doors, file viewing, and other operations. For this reason, we don't recommend letting *Wildcat!* auto-assign node ID numbers to dial-in nodes. Also, LAN users sometimes exit *Wildcat!* improperly, and tie up node ID numbers, eventually locking out automatic node assignments until you release them.

Instead of allowing auto-node assignment, you should specify the node ID number for each node in an environment variable, loaded from each node's AUTOEXEC.BAT file.

Combining fixed and floating node ID numbers

You can assign a fixed ID number to some nodes and allow others to float in two ways: by setting the "Auto assign node ID" option to "Yes" and using the *Wildcat!* utility *wcNODE* to assign and update node ID settings, or by setting the WCNODEID environment variable in each node's startup batch file to "AUTO". The following string sets the node ID to automatic:

```
SET WCNODEID=AUTO
```

You can abbreviate "AUTO" to "A" to save environment space.

wcNODE

wcNODE performs two functions related to automatic node assignment. It identifies which nodes are available for auto-assignment, and it lets you release nodes when they are incorrectly set to "in use." You can change Autonode status by selecting the node you want to edit, and making the appropriate changes to the items "Use Autonode" and "Autonode in use".

The variable *Wildcat!* uses to override the default Node ID is called WCNODEID. The correct command to change the node ID from "1" to "2" is:

```
SET WCNODEID=2
```

When *Wildcat!* finds this information in the environment, it overrides the default node ID number set in *MAKEWILD*.

Doors

Some door programs are capable of multi-node or network operation, while others aren't. If you need to limit a door program to one user at a time, then run *MAKEWILD*, go to the Doors menu, edit the door and set "Door multi-user" to "No."

Multitasking setup

If you plan to run multiple sessions of *Wildcat* on a single PC, you need to install a multitasking operating environment to manage the memory and create virtual machines. You have three choices here: Windows, OS/2 and DESQview. *Wildcat!* recognizes the presence of all three, and adapts by giving back timeslices to other tasks when it is idle.

DESQview is the preferred choice. It is expressly designed to multitask DOS applications such as *Wildcat!*, and it is well-optimized for communication tasks.

Windows and OS/2 are less desirable for multitasking, and you should use these only if you have no other option. Both operating environments multitask most efficiently with "native" applications — that is, applications written specifically to run under Windows or OS/2.

Novell DOS 7 is not recommended for multiline *Wildcat!* applications. The multitasking and the networking features of this environment are not sufficiently compatible with *Wildcat!* to ensure reliable operation.

General information

Whether you run DESQview, Windows or OS/2, you need to make some modifications to your system startup files to create the proper environment for *Wildcat!* Multiline.

CONFIG.SYS

Because you may be running up to eight lines in eight DESQview windows, the number of files opened by the system is increased significantly. In order for DOS to handle the increased load you must increase the number of file handles available in your CONFIG.SYS file.

Edit your CONFIG.SYS file and make sure you have a FILES= statement. A single *Wildcat!* window needs approximately 45 file handles for proper operation. Add 20 to this number for each additional window. For instance, FILES = 85 would be a recommended minimum for three lines. A four-line system can require over 100 file handles — an eight line system could require close to 200 or even more. Edit your CONFIG.SYS and change the FILES= statement to the appropriate value.

This should be one of the first lines of your CONFIG.SYS file, and is very important. The maximum number of files that DOS can open at one time is 255, which is why *Wildcat!* can't support more than 8 lines on a single PC under DESQview.

If you are operating *Wildcat!* on a PC connected to a Novell LAN, see the section on LAN use for additional information on file handle declarations.

AUTOEXEC.BAT

You must also edit your AUTOEXEC.BAT file to load SHARE.EXE, and start up DESQview or Windows automatically.

Assigning COM Ports

Because most *Wildcat!* multiline systems will be operating more than a single line, we will briefly discuss how COM ports are assigned.

Each incoming line must be assigned to a COM port. Because *MAKEWILD* only stores one COM port configuration, you must override these settings with an environment variable for each additional COM port you want to use.

You do this in the start-up batch file, CAT#.BAT. Each node should have its own batch file with the number replaced by its COM PORT assignment, i.e., CAT1.BAT, CAT2.BAT, etc.

The environment variable for COM port is

```
WCPORTID
```

To use a modem on COM 2, add the following line to your CAT2.BAT file:

```
SET WCPORTID=2
```

And so on, for each CAT#.BAT file.

The contents of the CAT#.BAT files can be similar to the single-line CAT.BAT file described in Chapter 3, *Wildcat! setup*. The following sample CAT3.BAT file contains the required items for line 3:

`ECHO OFF`	Turns off screen
`SET WCNODEID=3`	Sets NODE to 3
`SET WCPORTID=3`	Sets PORT to 3
`:RESTART`	Label for restarting on error
`C:`	Make sure we are on the right drive
`CD \WILDCAT`	Change to directory
`WILDCAT`	Begin program
`IF ERRORLEVEL 1 GOTO RESTART`	Check for fatal error
`ECHO ON`	Exits here if no error

Notice that the batch file is used to set the Node ID and the Port ID for each line. Although these two items do not have to match as they do in the example above, you may find it convenient to do so when running multiple lines on one PC.

Modem Definition

If you are using different types of modems on some lines, you can specify modem files for them to use instead of the default *MAKEWILD* configuration. If for instance nodes 1 and 2 on your 3-node BBS use USR Sportster modems, while node 3 uses a Multitech modem, your batch files would look something like this:

```
CAT1.BAT                CAT2.BAT                CAT3.BAT
SET WCMDM=SPORTSTR      SET WCMDM=SPORTSTR      SET WCMDM=MULTI144
SET WCPORTID=1          SET WCPORTID=2          SET WCPORTID=3
SET WCNODEID=1          SET WCNODEID=2          SET WCIRQID=5
                                                SET WCBASEID=$3E8
                                                SET WCNODEID=3
etc.                    etc.                    etc.
```

Notice that nodes 1 and 2 use the same type of modem, but on different serial ports. Node 3 uses COM 3, which is nonstandard and must be defined with a different IRQ than the default of 4 if *Wildcat!* is to work correctly.

Performance

The number of nodes you can run efficiently under DESQview, OS/2 or Windows will depend on a number of variables, including the speed of the microprocessor and clock, the baud rates of the connections supported and the speed of the hard disk.

Wildcat! is multitasker "aware", and will recognize when it is operating in DESQview, Windows or OS/2. *Wildcat!* automatically relinquishes the time slice when waiting for keyboard or communications port input, providing additional speed to other tasks. The program TAME is not required since this function is performed internally.

Disk Cache

You can increase the speed and efficiency of your hard disk by adding a disk cache. DOS comes with a disk caching utility called Smartdrive, and other caching utilities are available from third party vendors. Set your cache up with as much RAM as possible — up to 4MB is ideal, values as low as 512k will still improve performance.

If you use a disk cache, change the BUFFERS= setting in CONFIG.SYS to some number between 10 and 30. Without a disk cache, 30 to 50 should be adequate.

We do not recommend using "staged writes" or "delayed writes" with *Wildcat!* — data can become corrupted during task switching if it is not written back to the disk immediately.

Losing characters from the serial port

Characters are sometimes lost when the CPU and serial port cannot keep up with data coming in from high-speed modems. If you find characters are dropping during connections, you need to upgrade your serial port UART chip to one that performs buffering of input. Internal modems generally have a buffered serial port on board — if they don't, not much can be done to correct the problem without replacing the modem with a model that does perform I/O buffering.

For external modems, we highly recommend the 16550A UART chip as a replacement for the 8250 or 16450 found in most RS-232 serial boards. This chip becomes essential when two or more *Wildcat!* nodes are running on a single machine. This chip is inexpensive and is available from a number of computer discount houses. If you are unable to locate a source contact Mustang Tech Support at 805-873-2550 for a referral.

DESQview & QEMM

Several DESQview versions are available, but the one we recommend for *Wildcat!* is DESQview 386. This version combines the memory management of QEMM with the character-based multitasking of DESQview.

DESQview/X is not recommended — the full-time graphical interface requires much higher processing overhead, and can prevent *Wildcat!* tasks from running at full speed on all but the very fastest hardware.

Review the installation instructions provided with DESQview 386 before installing both DESQview and QEMM on your PC.

QEMM Setup

QEMM includes a utility program called "QSETUP", which will try to load as many of your drivers and resident programs into upper memory as it can. This procedure frees up DOS memory, and allows DESQview to open the largest possible DOS windows.

Tips:

- You may be able to open larger windows by not using the DOS=HIGH command in your CONFIG.SYS file. DESQview uses the high memory area (HMA) more efficiently than DOS. Try it both ways, using DESQview's Memory Status program to see which provides the most memory.
- If you have trouble accessing your CD-ROM drive in *Wildcat!* with DESQview running, try loading the CD-ROM drivers low.
- If you connect your PC to a Local Area Network, be sure to exclude the memory address for your network card (if it uses one) in QEMM. Otherwise QEMM may try to map the memory reserved for your network card and use it to load resident programs. Please review the documentation for QEMM and your network card for information on excluding memory addresses.
- If your motherboard supports ROM shadowing and you have problems with disk errors and unexplained crashes, try turning it off in your system setup, and let QEMM do the ROM shadowing instead.
- If QSETUP loads SHARE high then you will need to edit the CONFIG.SYS or AUTOEXEC.BAT (depending on where QSETUP

placed the command) file and remove the LOADHI statement. For reliable *Wildcat!* operation SHARE should never be loaded high.

- Stealth mode causes communication problems on some systems. If you experience unexplained lockups or system crashes, remove the STEALTH= parameter from the QEMM command line.

You can find additional QEMM and DESQview setup tips in the manuals for these products, and on the MSI HQ BBS.

DESQview Setup

Use the DESQview setup program SETUP.BAT to enter information about your video, mouse, and other hardware. Then go to DESQview's *Advanced Setup* to set *Performance* options.

Setting	Notes
Task Processing Time	Start with each task receiving 2 ticks for foreground and background. Adjust to 1 and 1 on a very fast PC, or 3 and 3 if screen scrolling appears jerky over a modem connection.
Memory Usage	Common memory should be set to 17 and the DOS buffer for EMS to 5K.
Optimize communications	Answer "Yes" if you are using serial ports, "No" only if you are using an intelligent serial board and any Multiline version of *Wildcat!*
Allow Swapping of programs	Normally "No". May be set to "Yes" to allow programs other than *Wildcat!* to swap out. If you elect to allow swapping, be certain to set each DESQView window running *Wildcat!* to disable swapping.
Manage printer contention	Set to "No" to allow programs to send text to the printer without monitoring from DESQview. This is necessary since DESQview will suspend a program that attempts to print if another is already printing.

If you are running DESQview on a Local Area Network, go to *Advanced Setup: Network* to set network options. Answer "Yes" to the "Peer to peer server" setting if this PC is a server on a Local Area Network. Review the DESQview documentation for other information on setting up your network with DESQview.

Wildcat! .DVP Setup

The next part of your DESQview setup involves creating a configuration file specifically for *Wildcat!*.

For your convenience, we have included sample DESQview configuration files with your *Wildcat!* package. They have been installed in the "Examples" directory (C:\WILDCAT\EXAMPLES) and are standard DESQview .DVP files. To use these .DVP files, copy them to your DESQview directory. You may need to modify them using DESQview's *Change Program* if you have installed *Wildcat!* on a drive other than C:\WILDCAT, or if your batch file names are not CAT1.BAT thorough CAT4.BAT or CAT8.BAT.

DESQview setting	Recommended response
Program Name	*Wildcat!* Node 1
Keys to Use on Open Menu	W1
Memory Size (in K):	400 (absolute minimum)
Program	CAT1.BAT
Parameters:	<blank>
Directory	C:\WILDCAT
Writes text directly to screen	N
Displays graphics information	N
Virtualize text/graphics	T
Uses serial ports	N
Requires floppy diskette	N

Note that we have indicated that *Wildcat!* does not write directly to the screen (even though it does) since the special DESQview code within *Wildcat!* automatically redirects the video buffer as needed.

The Advanced options screen allows even further customization.

DESQview setting	Recommended response
System Memory	0
Maximum program memory size	<blank>
Script buffer size	1000
Maximum EMS/XMS/VCPI/DPMI	blank
Text pages	1
Graphics pages	0
Initial video mode	<blank>
Close on exit	N
Allow close window command	N
Uses math coprocessor	N
Share CPU when foreground	Y
Can be swapped out	N
Uses its own colors	Y
Runs in background	Y
Keyboard conflict	0
Share EGA when foreground/zoomed	Y
Protection level	0

Automated Start-up

DESQview has a script language that makes automatic start-up of your BBS lines easy. Once you have created or edited the CAT#.BAT files to your liking and tested each manually, you are ready to link them together in a DESQView script.

The script recorder in DESQview records the keystrokes needed to start each BBS line, one after the other. You begin recording with the DESQview Menu on the screen and all programs closed.

Press and hold the Left [SHIFT] key and tap the [ALT] key to activate the recorder. A Script menu will appear allowing you to start a new script. When prompted for a script name you *must* enter the exclamation point (!) as the script name. This identifies it as an auto-start script to be executed every time DESQview is started. You may then enter any description desired.

When recording starts, the screen changes back to the DESQview Menu and you can begin. If you are using the .DVP files included with your copy of *Wildcat!* your keystrokes would be:

O	(for OPEN)
W1	(the keys for *Wildcat!* Line 1 window)
[ALT]	(to pop-up the menu again)
O	(for OPEN)
W2	(the keys for *Wildcat!* Line 2 window)
[ALT]	(to pop-up the menu again)
O	(for OPEN)
W3	(the keys for *Wildcat!* Line 3 window)
[ALT]	(to pop-up the menu again)
O	(for OPEN)
W4	(the keys for *Wildcat!* Line 4 window)
[ALT]	(to pop-up the menu again)

. . . and so on to open the rest of your *Wildcat!* windows.

Once you have all the BBS windows open, stop recording your script. Press and hold the Left [SHIFT] key and tap [ALT] to get the script menu. Stop the recording and the script window will close again.

If you make an error, the easiest way to correct it is to start over again. It's a simple recording process that only takes a minute or so. There is a utility on the MSI HQ BBS to edit scripts if you are interested in modifying an existing recording.

Recorded scripts are not automatically saved to disk, only to memory. To save it permanently you must either open the script menu again (with Left-[SHIFT] and [ALT]) and select **Save**, or you must completely exit DESQview, which will prompt you to save any scripts that are in memory.

Refer to your DESQview manual for more information on DESQview setup.

Windows

Information on running *Wildcat!* under Microsoft Windows is always being updated. Please refer to file README.WC4 on your distribution disks for additional configuration information.

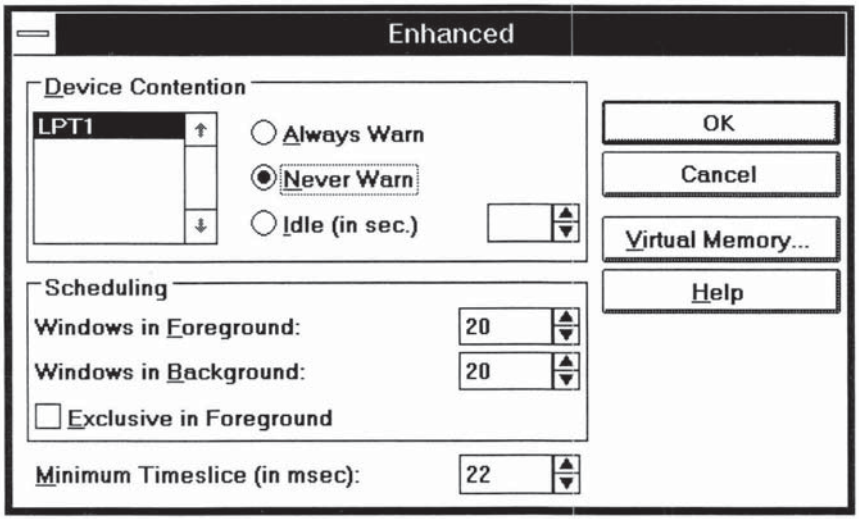
Microsoft Windows can be used as a multitasking environment with both serial ports and DigiBoard cards. We strongly recommend using Windows 3.11 (Windows for Workgroups), especially for regular serial systems, because of the enhanced port drivers included with that version. Windows does not multitask as well as DESQview from Quarterdeck Office Systems, but can handle multiple sessions if it is correctly configured.

The number of sessions you can run successfully depends on the speed of your PC hardware, the amount of memory, and the callers' connection speed. Most 486/33 systems are capable of handling up to four lines. Performance begins to deteriorate beyond four lines, and is noticeable to callers above 9600 baud — a faster machine is definitely recommended for more than four lines.

System configuration

The default Windows configuration must be modified to run *Wildcat!* successfully.

The first item to modify is the Control Panel/386 Enhanced options. Make changes to the following settings:



Option	Recommended Setting
Device Contention	Never Warn
Scheduling	20 Foreground, 20 Background
Minimum timeslice	22 for most systems, try 10 or lower on very fast systems (66 mhz 486 or Pentium)

You must now create a PIF (Program Information File) for each node. Open the PIF Editor and fill in the program name and path information.

PIF Editor - (Untitled)

File Mode Help

Program Filename: CAT1.BAT

Window Title: Wildcat! Node 1

Optional Parameters:

Start-up Directory: C:\WILDCAT

Video Memory: (•) Text ( ) Low Graphics ( ) High Graphics

Memory Requirements: KB Required 128 KB Desired 640

EMS Memory: KB Required 0 KB Limit 1024

XMS Memory: KB Required 0 KB Limit 1024

Display Usage: (•) Full Screen ( ) Windowed

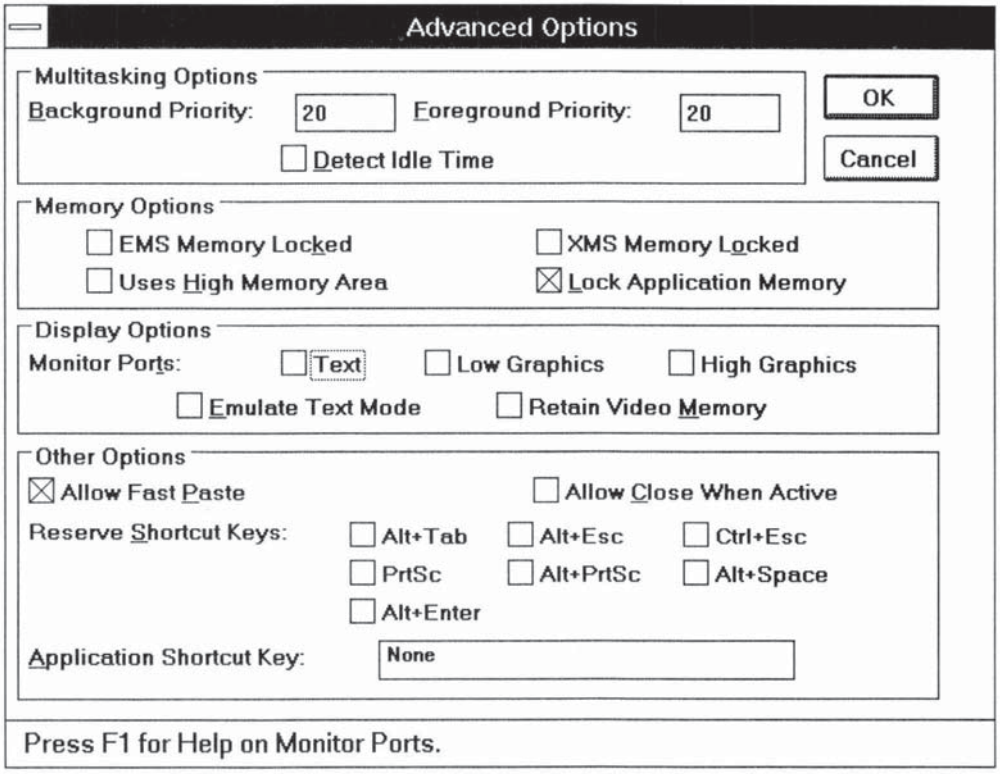
Execution: [X] Background [ ] Exclusive

[X] Close Window on Exit

Advanced...

Press F1 for Help on Optional Parameters.

Under Advanced Options, the following settings are required:



- Set Foreground and Background priority to 20 each. Do NOT select Detect Idle Time — *Wildcat!* will do this internally.
- Under Memory Options, clear all selections *except* Lock Application Memory. This prevents Windows from swapping *Wildcat!* to disk.
- Under Display Options, clear all options.
- Under Other Options, you can select Allow Fast Paste, but do not select Allow Close When Active. Shortcut keys are optional.

Serial Port operation

Serial port operation can be improved by adjusting the FIFO trigger levels in *MAKEWILD*. The recommended settings are:

- Trigger level for receive FIFO buffer : 4
- Trigger level for transmit FIFO buffer: 14 or 8

The Transmit FIFO is especially important under Windows and should be set to a high value (the default is 1). Depending on your hardware configuration, values of 8 or 14 are recommended for Windows.

DigiBoard operation

You should not attempt to run more than four lines under Windows unless you are using an exceptionally fast PC — a 486/66 or faster, or a Pentium. Performance will be substantially degraded, even on a fast machine, with more than about 6 lines.

DigiBoard includes a Windows driver with the newer PC/8e and PC/8i boards which should be installed according to the instructions with the card.

If your machine already has serial ports installed, you should set the Start Port Number to the highest number already in your system. For example, if you already have both COM1 and CMO2, set the starting Digi port to 2 (Digi assigns your serial COM1 as port 0 and your Serial COM2 as port 1). This allows other communication programs to use all ports installed on your PC.

Refer to the section later in this chapter titled "DigiBoard setup" for specific instructions and precautions on memory addresses and IRQ settings — these apply equally to the Windows Digi drivers.

The Control Panel Port Setup screen is where you configure each port for a multiline system. Windows can address the DigiBoard cards in two ways: through the internal Digi Int 14 interface with the port type set to

Digi, or as regular serial ports, provided each port is given a unique I/O base address.

In fact, you can use a combination approach and have *Wildcat!* address the ports through the Digi interface, while doors and other programs that do not address the Digi ports directly can use the ports as if they were standard serial ports.

The Port Setup determines how the card is used:

Digi Port	Windows Port	Virtual Base I/O Address	Virtual IRQ	CHR Ready	Alt Pin
1	COM3	3E8h	5	ON	OFF
2	COM4	2E8H	5	ON	OFF
3	COM5	3E0h	5	ON	OFF
4	COM6	2E0h	5	ON	OFF
5	COM7	Disabled	Disabled	ON	OFF
6	COM8	Disabled	Disabled	ON	OFF
7	COM9	Disabled	Disabled	ON	OFF

The Windows Port column is used by Windows applications to address the port. *QmodemPro for Windows* will make use of this setting. DOS applications will ignore it.

You can disable the Virtual Base I/O Address if you are setting *Wildcat!* to use DigiBoard as the port type. Serial doors will not be able to talk to the port if this setting is disabled. If you want to allow DOS programs to talk to the port as if it were a standard serial port, enter an available I/O address for each port in the column.

The DigiBoard documentation contains a list of available I/O address ranges. Likewise, the Virtual IRQ can be disabled unless you want to address the port as a standard serial device from DOS. For standard port addressing you should enter the same IRQ used by the board for each channel (shared IRQs). We recommend that you set each port and do not use the Auto Enumerate option.

The bottom section of the Port Setup screen is used to set the Virtual Ports for DOS. Check the box only if you want to enable the ports in DOS and want to set up the proper Virtual Base Addresses and IRQs.

OS/2

Information on running *Wildcat!* under OS/2 is always being updated. Please refer to file README.WC4 on your distribution disks for additional configuration information.

Wildcat! directly supports the OS/2 serial drivers. If you are running *Wildcat!* under OS/2, you can turn on this support by setting the "Serial Type" in *MAKEWILD* or *wcMODEM* to "OS/2 serial". The SIO drivers from Ray Gwynn are no longer necessary for *Wildcat!* operation under OS/2.

Because of the way OS/2 handles the com port, your modem settings must be set to **answer phone** with **result code**, and **determine baud rate** with **Result code 2.** You can make these changes in *MAKEWILD* or in *wcMODEM*.

CONFIG.SYS

Edit your CONFIG.SYS file (OS/2 version) and make the following changes/additions. Note that the last line is an undocumented setting and MUST be included:

```
MAXWAIT=1              ;the default is 3
PRIORITY_DISK_IO=NO    ;the default is YES
PRIORITY=ABSOLUTE      ;undocumented(!)
```

Next, modify your DOS boxes options, found under Settings/Session for the BBS as follows:

```
DOS_BACKGROUND_EXECUTION=ON
DOS_BREAK=ON
DOS_FILES=30
DOS_HIGH=ON
EMS_HIGH_OS_MAP_REGION=32
EMS_MEMORY_LIMIT=2048
HW_ROM_TO_RAM=OFF
HW_TIMER=ON
IDLE_SECONDS=10
IDLE_SENSITIVITY=75
INT_DURING_IO=ON
```

If you need to run a FOSSIL driver in a DOS box for other programs add the following (from SIO):

```
DOS_DEVICE=C:\OS2\MSDOS\VX00.SYS
```

DigiBoard

To use the OS/2 DigiBoard drivers, install the DigiBoard card in your machine, install the DigiBoard OS/2 driver from the driver disk provided by DigiBoard, and set the *Wildcat!* serial type to OS/2 in *MAKEWILD* or *wcMODEM*. Do **not** set *Wildcat!* to DigiBoard, since the OS/2 DigiBoard driver will use the OS/2 com driver directly.

Running Doors under OS/2

Some doors are not able to access the OS/2 serial drivers. In order to operate these doors under OS/2 you must install the latest SIO drivers from Ray Gwinn, available for download from the MSI HQ BBS.

Local Area Network setup

Wildcat! is installed and operated on a Local Area Network in much the same way as any other multi-user LAN application. Program, data and support files reside in a WILDCAT subdirectory on a network drive, to which all workstations including the BBS machine(s) should have full rights.

General information

The following few paragraphs apply to all types of Local Area Networks. We'll discuss specific network types later in this section.

Drive mapping

It is important that all network drives are mapped to the same drive letters on each workstation. *Wildcat!* relies on the drive and path information stored in *MAKEWILD* to locate its program, data and support files, and these drive letters must be consistent throughout the network.

If you have installed *Wildcat!* on a server's local drive, you will still need to remap that drive to a different letter, one that all nodes including the server, will recognize. Do this before running *MAKEWILD* to specify paths and file locations. If necessary, assign your C: drive a letter higher than any local or network drives with the DOS SUBST command, and map the substituted drive letter to your other workstations.

Local logons from a LAN workstation

Many offices like to use *Wildcat!* BBS on their local area networks to provide an in-house Bulletin Board System for their staff, or to provide easy access for staff to a customer service BBS, from their LAN workstations.

By making use of DOS environment variables for WCPORTID and WCNODEID, local workstations can become nodes on the BBS and allow logons without tying up a serial connection or requiring logon from some other LAN workstation.

The system administrator may assign a fixed WCNODEID variable to each workstation on the LAN. In cases where there are more workstations on the network than provided for in the license for your multiline *Wildcat!* BBS, the *wcNODE* utility can provide automatic assignment of node ID numbers on a next-available basis.

In order to provide local workstation access to a BBS on the LAN, the LAN administrator should install *Wildcat!* in a network subdirectory to

which all LAN workstations have access. To run *Wildcat!* for a local session, the network user needs simply to ensure that they have a valid WCNODEID (either in the DOS environment or via WCNODE), and they are in the *Wildcat!* home directory when starting *Wildcat!*.

A selection of command line switches is available for local logon—these are discussed more fully at the beginning of Chapter 4, *What a caller sees*.

Novell NetWare

Novell, like a number of good networks available, offers a great deal of configurability which is useful in a *Wildcat!* environment. We suggest making note of the following specific network options with *Wildcat!* multi-node.

Novell does not require loading the optional Novell NetBIOS module at the workstation level when loading *Wildcat!* from a network disk. Simply load the workstation shell with IPX and NETx. It is important to use the latest release of NETx, and to be sure that all nodes are running the same version.

Wildcat! directly supports Novell without SHARE or the NetBIOS programs. The exception to this is when *Wildcat!* is loaded from a non-network disk such as drive C, even if the PC is attached and active on the network. The use of a non-network drive is supported without SHARE under Novell, as long as *Wildcat!* is *loaded* from a network drive. If a combination of local and network drives is used, the *Wildcat!* data files (databases) MUST reside on the network drive.

Novell offers several versions of NetWare from the older ELS Levels to the new NetWare 4. We have found that Advanced NetWare ver. 2.15 and above are capable of combining the DESQview option with the network to run up to 8 nodes on a suitably-equipped workstation.

Establish a user name such as NODE-1 etc. for each node on the system. Then assign the user security access for read, write, modify, scan and create access to all files used by your *Wildcat!* system. The user does not

need access rights to the rest of the system, except perhaps to the public and logon directories if you want to do system maintenance from the node workstation under the node username. You may also want to establish a group name such as BBS, and assign rights by group rather than individually by node or user names.

For each node or workstation you must establish a unique *Wildcat!* Node ID. This is done using the environment variable WCNODEID, and can be set in the workstation AUTOEXEC.BAT file or by using the LOGON SCRIPT capability of Novell. If the script is used, make certain you use the proper Novell syntax by adding the DOS assignment in front of the SET, and enclose the assignment in quotes, i.e.,

```
DOS SET WCNODEID="2"
```

Note that this command is valid only if used in a Novell logon script. To set a DOS environment variable in a batch file, refer to the previous section, titled "Environment Variables".

If all PC workstations in your system make use of COM1 and a modem with NRAM capabilities, you need no other environment assignments, and can use the same CAT.BAT file for every node. Note that all nodes in this example are started from the HOME directory using the same batch file.

The additional batch files needed for other BBS activities such as Doors, Viewing Compressed Files, etc., should be created based on the instruction in the appropriate sections of *Features in Depth*.

Automatic user name lookup

Local users may log on to *Wildcat!* by creating a batch file to set a unique Node ID along with a communications port assignment of 0 to indicate no initialization should be sent to the modem. This way, *Wildcat!* can be started with the command line switch to logon locally, just as our first test logon was performed:

```
CD \WILDCAT
SET WCNODEID=21
SET WCPORTID=0
WILDCAT /LOCAL
```

This results in a prompt for first name, just like a remote logon.

Automatic Mail Notification

NetWare users can be notified of new incoming mail in *Wildcat!* even if they are not currently logged on to the BBS. If you want to be notified about incoming BBS mail, enter your NetWare login ID in the "Novell Name" field in your user record.

When a new message arrives on the BBS, a window will pop up over your application screen notifying you of the new mail.

Assignment of node ID numbers

In a LAN environment consisting of hundreds of users it may be advantageous to implement the Auto-Node ID assignment feature. This configuration item is in *MAKEWILD General Information*.

If a large number of nodes are run on a Novell network, care must be taken to ensure that the maximum number of open files is not exceeded. Since each node opens from 14-17 files during operation, a system of only 6 or 7 nodes could easily exceed Novell maximums.

Another setting that has an impact on network operation is the interrupt used for the network interface card (NIC). By default many NICs use IRQ2 (9) for operation, a setting which can cause loss of characters or slow throughput, especially with high speed modems. This degradation is due to the fact that lower IRQ assignments take priority over higher ones. Since the standard COM1 and COM2 use IRQ 4 & 3 respectively, it is advantageous to have the NIC use a higher IRQ such as IRQ5 to subordinate network traffic to the communications port.

NET.CFG and SHELL.CFG

Since MultiLine versions of *Wildcat!* are capable of operating up to eight lines on a single workstation, additional network file handles must be made available. Extending the default number of file handles in NetWare is done through a file very similar in form and function to CONFIG.SYS. The NetWare file is called SHELL.CFG or NET.CFG, depending on version, and must be located in same directory as your IPX, NETx or VLM drivers. It is an ASCII file that must be created with a text editor, and must contain the line

```
FILE HANDLES = 210
```

When *Wildcat!* is running multiple nodes on a network there can be a large number of files open, as every file is counted every time it is opened.

Because DOS only allows a maximum of 255 file handles per PC, *you must also reduce the number of files declared in your CONFIG.SYS file on the workstation to 40*. No problems should arise from this reduction.

If your workstation uses VLM drivers, you should put all file handle references in CONFIG.SYS.

Banyan Vines, LAN Manager and Other dedicated-server LANs

Wildcat! supports all other network types as "DOS Share" in *MAKEWILD*. The general principles discussed earlier in this section apply with respect to drive mapping and access rights.

LANtastic and other Peer to peer networks

This section reviews network considerations for generic peer-to-peer networks using LANtastic as an example. The operational features discussed apply to most similar LANs except for network specific recommendations. From an operational viewpoint, these networks will function much like any other. The primary difference for a *Wildcat!* installation is the use of multiple "servers." If multiple workstations are used as servers for various system

resources, these same servers may also be used as a *Wildcat!* node. Each node must still be given a unique Node ID using the environment variable command, and will be automatically assigned a NODE WORK directory based on its node number.

LANtastic operates *Wildcat!* well when configured properly. The following network parameters have been found to increase reliability and improve operation:

Create a CONFIG.SYS file with the command

```
FILES=65
```

where 65 is equal to 50 + (5 X the number of *Wildcat!* nodes installed). For example, a three node system would be 50 + (5 X 3) = 65. Failure to supply enough file handles will cause operational problems in various areas with little or no explanation as to the cause. These may need to be increased if additional nodes are installed, or if your implementation makes use of Netmail or other file intensive applications. Finally, CONFIG.SYS must include

```
STACKS=32,128
```

to allow additional stack buffer area. See your DOS manual for details of FILES, FCBS, and the STACKS command.

LANtastic is constantly making improvements in their software. In order to achieve the most efficient installation you should check the latest information posted on the MSI! HQ BBS. The suggestions given here have been tested and used on versions 2 through 6 of LANtastic. Important notes gathered from various LANtastic users are discussed below

- In the server setup the number of USERs should be equal to the number of network connections + one for the server.
- The minimum number of NETWORK TASKs is equal to the number of network connections + one.
- If you need to load SHARE, do not load it high, and use the following command on all workstations:

```
SHARE /F:16384 /L:500
```

- The memory buffers should be set for 8192. We have been advised that the LANtastic print redirection program in some releases causes a variety of network problems with communication processing. We recommend that LANtastic users experiencing unexplained system problems or crashes **remove all NET USE LPT1** printer commands and spooler programs. In addition, all PCs, both workstations and servers, must be given account privileges which **exclude the "P — Peer Privilege"** choice.
- All physical drives used for *Wildcat!* must be addressed as the same drive letter by *all* servers and workstations. The NET USE command must be implemented to make these assignments. For example, if both PCs in a two line system have a drive C: locally, and both drives are used for *Wildcat!* files, they both must be reassigned. Each PC should have commands such as

```
NET USE E: \\SERVER1\C-DRIVE
NET USE F: \\SERVER2\C-DRIVE
```

- These assignments allow all *MAKEWILD* configurations to address the drives with the same drive letter assignments.

The workstations in a LANtastic network do not require a hard disk, and operate well with a single floppy for boot-up. Include the LANtastic software on the floppy with a batch file containing commands necessary to connect to the server, establish network link names, and finally to begin CAT.BAT (or a different CAT2.BAT) from the hard disk HOME directory. There is no need to issue the SERVER command on the workstations.

The *Wildcat!* database safety mode should initially be set to PARTIAL for LANtastic and other peer-to-peer systems. If you suspect that a network slowdown may be caused by slow disk access, you should try changing the safety mode to NONE and see if performance increases. If so, do not be concerned with the lack of a safety mode since any database errors which might occur can be repaired easily with *wcREPAIR*.

The use of a small disk cache system with LANtastic is recommended for best performance. Artisoft's own LANcache may be satisfactory for your

system, and several 3rd party cache programs have been successfully used including Hyperdisk and PC-Cache.

Some peer-to-peer networks cannot be configured to use to use the same drive letter assignments on all workstations for all physical drives, for example, if each PC has its own physical drive C: and addresses the other PC's drive C: as another drive letter, perhaps E In this case, separate configuration files must be used.

The first node is set up and configured in C:\WILDCAT on PC1 with drive assignments in *MAKEWILD* referencing the correct file locations on its drive C: and files on PC2 as drive E:. When this configuration has been established it should be copied to the second PC. Remember to copy all files created by *MAKEWILD* including all .DAT files for security, files, conferences, etc.

The second PC is set up by running *MAKEWILD* on its own drive C:\WILDCAT, reading the duplicate of the *MAKEWILD* configuration. All references to *Wildcat!* file locations must then be corrected to reference drive E: (PC1's drive C:) and drive C: (PC1's drive E:).

This setup also causes complications for batch files supporting doors and external protocols, and results in two sets of WCWORK directories. In our example, PC1 should make use of the WCWORK directory on its drive C:\WCWORK\NODE1 and PC2 should make use of the WCWORK directory on its drive
`C:\WILDCAT\WCWORK\NODE2.`

The above setup is not recommended unless the LAN is incapable of creating a single set of drive assignment letters.

Slave card setup

The COMMVision solution allows linking multiple bridged systems, each with multiple Remote Stations.

Follow the same *Wildcat!* software setup procedures as a network. This setup requires a suitable file server, usually an 80386 or better, and a slave card such as COMMVision's Remote Station. COMMVision's cards support Novell, including bridged server support.

In brief, a slave card environment is one in which a single machine adds one or more slave cards with a modem and phone line connected to each slave card. *Wildcat!* is loaded in the memory of *each* card just as if it was a separate PC system, and it uses the shared hard disk of the main system for storage.

Some slave systems allow viewing access to each slave PC environment via the main system keyboard and screen. The cost factor in this setup can approach or exceed the LAN setup, depending on the network type and PC cost.

A note about Novell DOS 7

The current release of Novell DOS 7 does not appear to provide the correct support for multitasking, communication services or network compatibility for *Wildcat!* Multiline. We therefore cannot recommend its use at this time.

DigiBoard setup

In addition to regular serial ports, *Wildcat!* supports intelligent multiport serial boards, including the Intelligent DigiChannel card, and other multiport cards through a Fossil Driver.

The following notes and instructions apply *only* if you are setting up *Wildcat!* to use something other than standard DOS serial ports.

The DigiChannel series of intelligent multiport serial cards are supported directly by *Wildcat!* These cards allow you to run up to 8 lines at full speed on a single PC, without the IRQ and port addressing problems often associated with most other serial cards.

Hardware Installation

This section is a supplement to the installation instructions provided with the DigiChannel PC/2x, PC/4x or PC/8x card. Both "E" and "I" versions of each card are supported. There are currently two versions of these cards all carrying the same model number but with differing memory requirements. The later versions of these cards are shorter than the earlier full-length ones, and they have the DIP switches on the backplane, accessible from outside the PC.

Depending on the card you are installing, the configuration consists of setting dip switches or jumpers on the card to set three items: Memory Start Address, I/O Port Address, and Interrupt Request (IRQ) Line Number.

Memory Start Address

The DigiChannel card contains onboard memory which is accessed through a "window" in your PC memory map. This RAM provides buffered support for communications I/O.

Depending on which DigiChannel card you are using, the window size may vary from 8k to 64k. Refer to the documentation for your card for memory addressing specifications. The memory address you select must be unused by any other device in the system.

Configure your DigiChannel card by following the instructions in the Installation Guide with the card. Your card may require changes to jumpers or dip switches to set the memory start address.

Memory Address Considerations

Although we cannot suggest a default setting that will work with every PC system, we suggest you start by configuring the PC/8e or PC/8i card to use the 64K window from memory address D000 through DFFF (hexadecimal address). This memory location is usually used only by LAN adapters and Ethernet. We recommend using the 16-bit PC/8e or PC/8i card as opposed to the 8-bit COM/8i card when possible for increased bus transfer speeds.

The memory address range you select *must* be vacant. It cannot be used by any other device in the system. Typical sources of contention are VGA cards, Network Interface Cards (NICs), ESDI & SCSI hard disk interfaces, and memory managers such as QEMM, which uses memory above E000.

Conflicts can be solved in a number of ways, depending on the device in conflict.

VGA cards — These add-on cards usually have ROM BIOS extensions beginning at C000, and use 32K of address up to C7FF. If you have an add-on VGA card installed you may need to avoid placing the DigiChannel card at C000. Systems with VGA built-in to the system board do not usually cause a conflict since the ROM BIOS is not located in the address space.

NICs — Network interface cards sometimes make use of memory addresses for buffers at D000 or D800, particularly for Ethernet. The amount of RAM used is usually 8 to 32K. If your system is connected to a LAN, you should check the network adapter to determine if it makes use of RAM buffering.

In a NetWare installation this check can be made by viewing the software configuration of the IPX driver on the workstation. To check your configuration enter the command

```
IPX I ENTER
```

The screen display will indicate if RAM buffering is being used.

If a conflict exists with your current NIC configuration you may find it easiest to change the DigiChannel card to an address such as C000, unless you also have a video card conflict as well. If you are using VLM drivers, check the settings in NET.CFG for RAM assignment, if any.

ESDI & SCSI Disk Interfaces — These devices often have ROM BIOS extensions that are located in the range of C000-DFFF. The easiest way to determine the addressing used is to check the manuals and other documentation for the devices.

If a conflict exists with a hard drive device, the easiest solution is to move the DigiChannel to a non-conflicting location.

In most cases, resolution of a memory conflicts involves a compromise. Something must be changed to rectify the situation. In most cases this is a simple re-configuration of the DigiChannel settings to make use of an available location. However, it is possible that a PC has no memory locations available without removing a VGA card and replacing it with a monochrome video controller.

Conflicts Between 8-bit and 16-bit Devices

The architecture of the ISA PC/AT bus allows for the use of both 8-bit and 16-bit devices. However, by default all memory devices are considered to be 8-bit devices. All 16-bit devices must declare their presence by raising a flag, telling the PC that it is a 16-bit device. Because of the method used to raise this flag, the presence of *any* 16-bit device in a 128K segment (such as C000-DFFF), causes the *entire* segment to be treated as 16-bit memory. If an 8-bit device resides in the same segment as a 16-bit device it will fail since it cannot be addressed properly by the system.

The most common conflicts in 8-bit versus 16-bit addressing within the same segment involve VGA cards and NICs.

The PC/8e and PC/8i cards are both 16-bit devices, and are recommended for their high bus transfer speeds. These cards can only be used in conjunction with other 16-bit cards that make use of memory in the range C000-DFFF. You *may* use an 8-bit network interface card with a PC/8i or PC/8e card as long as the NIC doesn't make use of a RAM buffer in the 128K range. A 16-bit network card is recommended for the fastest throughput.

The typical symptom of an addressing problem involving 8-bit vs. 16-bit addressing is a failure of the 8-bit device (the VGA card, NIC).

I/O Port Address

The DigiChannel board must have a unique I/O Port Address. This address is used to communicate with the system and must be different from every other installed device. Like the Memory Address, the I/O Port Address is configurable to avoid conflict with other devices. The choices available are usually between 100 (hexadecimal) and 320. Check the installation manual for your DigiChannel card for allowable values.

Device conflicts with the I/O address are less likely and easier to avoid. Check your PC for items such as tape backup systems, SCSI or ESDI disk controllers, CD-ROM controllers, NICs, and plotters. Each such device is probably making use of an I/O port address which must be avoided. The following table lists some commonly assigned port addresses for various devices.

I/O Address	Device
1F0 - 1F8	Fixed Disk
200 - 207	Game I/O
278 - 27F	Parallel port 2 - LPT2
2E8 - 2EF	Serial port 4 - COM4
2F8 - 2FF	Serial port 2 - COM2
300 - 31F	Network interface card
360 - 363	PC Network (low addressing)
368 - 36B	PC Network (high addressing)
378 - 37F	Parallel port 1 - LPT1
380 - 38F	SDLC Bisynchronous
3A0 - 3AF	Bisynchronous
3B0 - 3BF	Monochrome display & printer adapter
3C0 - 3CF	EGA/VGA card
3D0 - 3DF	CGA/MCGA card
3E8 - 3EF	Serial port 3 - COM3
3F0 - 3F7	Diskette controller
3F8 - 3FF	Serial port 1 - COM1

Interrupt Request (IRQ) Line

The DigiChannel and other devices let the PC know it has information to transmit by signalling the CPU via an Interrupt Request Line. Like I/O addresses, each IRQ must be unique. The IRQ is configurable to avoid conflict with other devices. The choices available are usually between 2 and 15. Check the installation manual for your particular DigiChannel card for allowable values and set the jumpers or dip switches to an unused value.

IRQ #	Function/Device assignment
2	Cascade interrupt for second interrupt controller
3	COM2; PC Network; SDLC/BSC
4	COM1; SDLC/BSC
5	Parallel port 2 - LPT2
6	Disk controller; hard & floppy disk drive
7	Parallel port 1 - LPT1
10	Various
11	Various
12	Various
15	Various, some hard drives

In many systems the IRQ that is usually reserved for COM2 (IRQ 3) may be used by the DigiChannel. This is only possible if there is no COM2 port on the PC, or if it has been disabled. Other available values may also be used as long as conflicts are avoided.

Although some DigiChannel applications do not need an IRQ setting, you must set one for use with *Wildcat!*.

Once you have set all jumpers or dip switches according to the instructions, install the DigiChannel card in an available slot in your system.

DigiChannel Software Configuration

Now that your communications card has been configured with a unique Memory Address, I/O address and IRQ, you must run a configuration program to tell the device driver software how to communicate with the card. Follow the instructions in your DigiChannel manual for running the configuration program, usually called XIDOSCFG.EXE. It sets the device driver software to the same settings as the hardware card, and is straightforward.

The DigiChannel card is shipped with a number of device drivers for your *Wildcat!* installation. If you are operating under DESQview and DOS, you should install what DigiBoard calls the "Universal Driver."

DOS Driver Configuration

When first run, the program usually indicates the driver is configured for no boards. In this case you must first select *Add Board* and select the correct board from the list.

Once the board is selected, it is displayed along with default entries for Memory Address (called the *Memory Window*), I/O Address (called *I/O Port*) and *IRQ*. To change these settings, use the cursor keys to position the highlight bar over the desired item, and then choose a setting from the choices on the lower part of the screen. Set each to the values you used on the board in the previous section.

The next item, *Starting Channel Number*, must be set to zero for proper operation with *Wildcat!*.

Finally, set the *Driver Support* to DOS/EBIOS and then move the cursor back to the *Board #* item to display the main menu.

Channel Parameters

These items do not need to be set for operation with *Wildcat!*. Baud rate and transmission flow control are all handled internally by *Wildcat!*.

Options

This menu choice is selected by pressing "O" on the main menu and allows you set two items, *Alt Pin* and *Char Ready Flags*. The first item, the Alt Pin feature, is not used by *Wildcat!*. However, the Character Ready Flags are essential to proper BBS operation, and must be enabled on all channels.

To activate the Character Ready Flags, select them by pressing "C" on the options menu and then select "E" to *Enable All Channels*.

Once you have finished configuring the device driver, you may then exit the configuration program.

Device Driver Installation

Regardless of which DigiChannel card you install, you must also install a software device driver to tell DOS where the card is located and how it is configured. You configured the device driver in the previous section.

The device driver for the DigiChannel is usually called XIDOS5.SYS. This driver must be loaded in your CONFIG.SYS file. Your CONFIG.SYS file is located in the root directory of your boot disk, and must be modified to contain the command line:

```
DEVICE=C:\DIGI\XIDOS5.SYS
```

You should alter the line above to reflect the correct directory where the driver is located on your system. Use any plain ASCII text editor to perform the editing of your CONFIG.SYS file.

Once you have added the above command, reboot your computer to test the configuration. You should be greeted with a message indicating that the device driver had initialized the board successfully.

QEMM setup notes

Although the Quarterdeck installation program provides complete installation instructions and even an optimize utility, there are some additional parameters that must be set.

The DigiChannel card makes use of a RAM Address window to swap data to and from the card. The memory starting address for this window was set previously through dip switches on the card and again during the device driver installation.

As indicated earlier, the memory location selected must not be used by any other device in the system, *including QEMM*. Depending on the DigiChannel card used, either 32K or 64K of RAM must be excluded from use by QEMM.

To exclude the memory region used by your DigiChannel card, modify the command line for QEMM in your CONFIG.SYS file. Edit your CONFIG.SYS file (it is in the root directory of your boot drive) using any plain ASCII text editor.

One of the first few lines in the file should be similar to

```
DEVICE=C:\QEMM\QEMM386.SYS RAM ST:M
```

This is the line that actually loads the QEMM driver. The additional items on the line tell it whether to make use of different areas of memory and whether to use what QEMM calls stealth mode.

Regardless of the contents of your particular QEMM installation line, make an addition telling it to exclude the memory region used by your DigiChannel card. Add a parameter similar to X=D000-DFFF which tells it to exclude the 64K region from D000 through DFFF. The modified line might look like

```
DEVICE=C:\QEMM\QEMM386.SYS X=D000-DFFF RAM ST:M
```

If you are using the PC/8e or PC/8i card you must exclude a 64K (or 8K depending on the version of the board) region such as X=D000-DFFF. The excluded memory should be the exact area used by your DigiChannel card. For example:

```
C000-CFFF - PC/8e or PC/8i start at C000 (64K)
```

Other parameters on the QEMM command line may be left alone unless you experience problems. On some systems you may find that QEMM's stealth mode causes problems, and the ST:x parameter should be removed.

X.25 PAD

How it works

Wildcat! normally answers calls that arrive through a modem connected to the telephone network. When using a PAD with an X.25 network, the arrangement is much the same — the X.25 network replaces the telephone network, and the PAD replaces the modem. To *Wildcat!*, this configuration is much the same except that the device *Wildcat!* talks to (the PAD) no longer responds to regular modem "AT" commands. Therefore, *Wildcat!* needs to be told somehow that there is not a normal modem on the other end of the cable.

Setting up an X25.MDM file

In this section we will describe the MDM file settings necessary for *Wildcat!* to communicate properly with a PAD. This section assumes that you are familiar with *Wildcat!*'s MDM files and the procedures necessary to create and edit them with *wcMODEM*. If you are unfamiliar with this procedure, please review the *wcMODEM* section in Chapter 3.

The modem name setting should be something meaningful like "X.25 Connection.

The type of serial port and communications port number, IRQ, and base address should be set as per your system configuration. Since *Wildcat!* talks to the PAD through a serial port, this can be any type of serial port supported by your version of *Wildcat!*.

The "Determine ringing using" setting should be set to "Auto Answer". We will configure the PAD to act like a modem that is in auto answer mode — that is, it simply raises carrier detect (CD) when a call comes in.

The "Determine baud rate using" setting should be set to "DTE". It is not possible for *Wildcat!* to determine exactly what baud rate the caller is using as the PAD does not transmit this information to the BBS computer.

The "Initialize port at what baud rate setting should match whatever you have configured in your PAD, usually this is 9600 or 19200 baud.

The "Lock DTE at initialization baud rate setting should be set to "Y". The baud rate between the BBS computer and the PAD is always fixed.

The "Use CTS/RTS flow control" setting should be set to "Y". You must also configure your PAD to use CTS/RTS flow control (the method of doing this varies between PADs).

The "Take modem off hook on exit" setting should be set to "N".

The only timing parameters which will affect operation are the "Milliseconds to lower DTR for hangup" and "Milliseconds to delay before prelog". The DTR hangup delay should be set to something sufficient to cause the PAD to recognize the disconnect request (a value of 2000 should suffice here, the minimum will be determined by your PAD). The time before prelog is simply the amount of time *Wildcat!* will wait before sending the signon banner. Since there is no modem connection involved, this can be set to 0 for fastest response.

The "Trigger level for FIFO buffer" only applies to 16550 UART based serial ports and should usually be left at its default.

All remaining options are modem commands and responses that do not apply to PADs, so they must all be blanked out. Sending modem commands to a PAD will have undesirable effects.

Once all the options are configured correctly, save these settings as X25.MDM and the *Wildcat!* part of the configuration is complete.

Setting up your PAD

The most complicated step in setting up an X.25 system is properly configuring the PAD. PADs are very sophisticated devices with dozens of options and settings for a number of different hardware and software configurations.

There are a set of 22 parameters, called X.3 parameters, whose meanings are consistent across all PADs. However, the particular method

of setting these parameters is different for each PAD. The basic method is the same — you connect a computer with a serial cable to the special port on the PAD called the "command port" or "configuration port". Using a terminal program on the computer, you talk to the PAD through the serial connection in order to set up its configuration. You will have to refer to the documentation that came with your PAD for details on this procedure.

Although the details will vary, the following information describes the basic settings that must be made in order for *Wildcat!* to operate properly with the PAD.

X.3 Parameters

X.3 parameters 1 through 22 must all be set to 0 (zero) with the following exceptions:

- Parameter 4 (Idle Timer) should be set to a small number such as 2. This determines the amount of time, in 1/20 second intervals, that will pass before the PAD will send any waiting data to the caller.
- Parameter 11 (Speed) should be set to a value which indicates how fast the BBS computer will be talking to the PAD. A value of 14 here means 9600 bps, and 15 means 19200 bps.
- Parameter 20 (Echo Mask) must be set to 255 in order to disable echo of all characters.

Additional Settings

Most PADs also have an additional set of parameters that must reflect the following characteristics in order for *Wildcat!* to function correctly:

- The XON and XOFF characters must be disabled. For Xmodem and Ymodem protocol transfers, *Wildcat!* requires that the XON and XOFF characters not be given any kind of special treatment (they must be treated just like any other character like 5 or D).
- CTS/RTS flow control must be enabled.

- When a call is connected, the PAD must raise the carrier detect (CD) line to tell *Wildcat!* to proceed with the logon sequence.
- When a call is cleared (the caller hangs up) the PAD must lower CD to tell *Wildcat!* that the connection is no longer valid.
- The PAD must accept the lowering of the data terminal ready (DTR) signal to indicate that *Wildcat!* wants to disconnect the caller.

Most other special features of the PAD are designed for compatibility with older or nonstandard hardware and should be disabled.

Remote PAD Settings

There is one more feature that is required of the PAD in order that callers will be able to properly communicate with your *Wildcat!* BBS. This feature is the ability to configure the remote PAD's X.3 parameters upon call connection. This is necessary to ensure that incoming calls will not be disrupted by incorrect remote X.3 settings.

This feature is unfortunately very PAD-specific, so it is not possible to describe exactly what is necessary to enable this feature.

The settings should be configured in the same way as your local PAD's X.3 settings — all zero except parameters 4 (Idle Timer) and 11 (Echo Mask). Upon accepting an incoming call, your PAD will use the X.29 protocol to transmit this set of X.3 parameters to the calling PAD.

Example configuration: Microtronix CSI-X.25 PAD

Wildcat! can be operated with a packet switched network using many packet assemblers/disassemblers (PADs). The configuration of each PAD is different depending on the manufacturer. Later in this section you'll find information about the signaling needed for PAD operation, while this section contains very specific product settings for installing the Microtronix CSI-X.25 PAD. For additional information contact Microtronix at: 200 Aberdeen Drive, London, Ontario N5V 4N2, CANADA. Phone 519-659-9500 voice 8:30-5pm EST. Fax: 519-659-8500.

What follows is some brief information related to the setup of the Microtronix CSI-X.25 PAD for operation with *Wildcat!*.

For customer service and additional questions about setup contact Microtronix Customer Service at the number listed above, x225 or x226.

Each port can be configured identically for the various port parameters. Examples follow each command shown.

```
PORT # 3
PROTOCOL=USER, SPEED=9600, PARITY=ASIS, ENCODING=NRZ, DUPLEX=FULL
FLOW=SIGNAL, MODEM=11, MTIMER=1, DEBOUNCE=10, STATUS=ENABLE
```

In order for the asynchronous ports to pass data transparently, a default profile HOST is copied to the ports that will be used.

```
HOST = 1:0    2:0    3:0    4:3    5:1    6:0    7:21   8:0    9:0
       10:0   12:1   13:0   14:0   15:0   16:127 17:24  18:18  19:1
       20:0   21:0   22:0   40:0   41:0   42:0   43:0   44:0   45:0
       46:0   47:0   48:0   49:0   50:0   51:0   52:0   53:0
```

A second profile, created by the user, overlays the first to adjust for such things as signal flow control and idle timer. It also sets the Microtronix extended parameters to issue commands on call connect and parameters that allow I/O transparent mode.

```
MUSTANG  = 4:5    5:2   12:0   41:160   50:128
```

The final parameters for the HOST ports should look like this:

```
TERMINAL # 3

 1:0     2:0     3:0     4:5     5:2     6:0     7:21    8:0     9:0
10:0    12:0    13:0    14:0    15:0    16:127  17:24   18:18   19:1
20:0    21:0    22:0    40:0    41:160  42:0    43:0    44:0    45:0
46:0    47:0    48:0    49:0    50:128  51:0    52:0    53:0
```

A parameter change on the remote DTE is required when the call connects and is accomplished using a command to send a profile named X29.

```
X29 =       2:0          3:2          4:4          9:0         13:0        21:0
TERMINAL # 3
RPROF=X29  AUTOCALL=   LFPAD=0     CRPAD=0     LDSP=18     LDEL=24    CDEL=127
```

```
EDIT=OFF    WIDTH=0      TABS=OFF    ECHO=OFF     ECHOMASK=0 TYPE=TTY   PUBLIC=OFF
MBIT=OFF    PAGEWAIT=0   CTEXTEND=0  CTATEMPT=0   CTIMER=0   LINK=0     LOOPBACK=OFF
```

All ports are configured and ready to accept all calls via the routing table. One entry is entered at the end of the routing table.

```
Name                    Match                    Route to
RC                      Data=RC_PASSWORD         RC,CLEAR /reverse
TO_NMC                  Data=NMC                 NMC /reverse/strip
TO_202_217              In on port=0 data=2      1 /reverse/strip
FROM_2                  In on port=1             0 /reverse
TERM_2                  Data=02                  2 /reverse
TERM_3                  Data=03                  3 /reverse
...
MUSTANG                 2,3,4,5,6,7,8
```

Alphanumeric Soup (Glossary)

CCITT - Comité Consultatif International de Télégraphique et Téléphonique

The CCITT is an international organization that proposes standards for data and voice communications. The standards that we will be dealing with in this section are X.3, X.25, and X.29. Other CCITT standards you may be familiar with are V.32bis and V.29.

DCE - Data Communication Equipment

When two pieces of electronic equipment are connected with a data cable, typically one end is called the DCE and the other end is called the DTE. A modem connected to a personal computer is called a DCE (it does the Communicating while the computer is the Terminal). A Packet Data Network (PDN) is a DCE because it does the Communicating while the PAD is the Terminal end of the X.25 connection.

DTE - Data Terminal Equipment

A DTE is one endpoint of a communications channel. A modem connected to a personal computer is not a DTE because data flows through the modem. A personal computer is a DTE because the data does

not travel through it. In the world of X.25, a PAD connected to a PDN must be configured as a DTE (in this case the PDN is the Communicating equipment while the PAD is the Terminal end of the X.25 line).

HDLC - High-level Data Link Control

HDLC is the protocol used to transmit the packets that make up an X.25 connection. You will not need to deal directly with HDLC.

PAD - Packet Assembler/Disassembler

A PAD is a device that allows an asynchronous device (like a serial port on your computer) to communicate over a channel on an X.25 connection. Typically a PAD will have one or sometimes two X.25 ports, and a larger number of asynchronous ports. The X.25 port(s) would be connected to a synchronous network modem provided by the X.25 service provider, and the asynchronous ports would be connected to terminals or in the case of *Wildcat!*, a computer running BBS software.

PDN - Packet Data Network

The PDN is the network provided by a service provider such as CompuServe, SprintNet, AutoNet, etc. There will be local access numbers in many places throughout the country which callers may use to connect to the network. Once connected to the network, the callers will be able to connect to any service (like your BBS) on the network just by specifying your network address.

PVC - Permanent Virtual Circuit

A PVC is like a leased telephone line — it is a connection that is always active and cannot be disconnected (that is, you can't "hang up"). PVCs are used for specialized applications and are not useful in a BBS environment. This definition is provided for contrast with SVC.

SVC - Switched Virtual Circuit

A SVC is like a regular telephone connection — it exists from the point contact is made until one of the parties hangs up. Every time somebody

calls a service such as your BBS, an SVC is established for the duration of the connection. There is no single physical connection that connects the two endpoints, so this is called a "virtual circuit".

X.3

X.3 is a CCITT standard that defines a set of 22 operating parameters for a PAD. X.3 parameters control the operation of a PAD in much the same way as S-registers control the operation of a Hayes compatible modem. However, X.3 parameters are defined by the international X.3 standard and are consistent across all PADs, regardless of the manufacturer.

X.25

X.25 is the protocol that is used by a PDN to get data from one PAD to another. A PDN is often referred to as an "X.25 network".

X.29

X.29 is the protocol used between PADs to exchange X.3 settings. When a caller calls a local access number to access a PDN, they will be connected to a PAD in their city. Once they have specified your network address and an SVC is established to your PAD, your PAD will configure the remote PAD's X.3 parameters using the X.29 protocol.

XOFF/XON

XOFF and XON are mnemonics for "Transmit OFF" and "Transmit ON". The XON and XOFF characters are regular ASCII characters which in the past were used to provide flow control between a terminal and whatever device it was connected to. Modern BBSs do not use XOFF and XON, but use hardware (CTS/RTS) flow control instead. XOFF and XON are also incompatible with the Xmodem and Ymodem file transfer protocols.

Other multi-port serial boards

Running *Wildcat!* on other multi-port serial boards involves the use of a Fossil driver. Please refer to the file README.WC4 on your distribution disks for configuration suggestions. The fossil driver interface is discussed in the following section.

Fossil Driver

A Fossil Driver is not a dinosaur at the wheel of an old Chevy. "Fossil" actually stands for "Fido Opus SEAdog Standard Interface Layer". A Fossil Driver provides a consistent way for communication software like *Wildcat!* to handle nonstandard communication hardware by talking to a device driver for the hardware rather than directly to the hardware itself.

Fossil drivers can handle such issues as shared IRQs, unusual IRQ and base address assignments, and proprietary features on some cards such as buffered I/O. Examples of general purpose Fossil drivers for the PC are X00 by Ray Gwinn and BNU by David Nugent. Both are available for download from the MSI HQ BBS and include full documentation.

A commercially-available fossil driver called COMM-DRV that supports a wide variety of intelligent and non-intelligent cards is available from Willies' Computer Software Co., at (713) 498-4832. This driver currently supports intelligent cards from DigiBoard, Boca Research and Arnet, and the vendor expects to support several additional intelligent cards in the near future.

Fossil drivers for specific communication hardware devices are often available from the vendor. Check the README.WC4 file on your distribution disks, or contact MSI Technical Support for up-to-date information.

8 - Quick Reference

So little done, so much to do.

Cecil Rhodes

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Keyboard and mouse interface

Most *Wildcat!* utilities share a common look and user interface. Most screens are simple fill-in-the-blanks text entry screens. In these screens you can move around from field to field using the cursor keys, and enter the information requested. The [PG UP] / [PG DN] keys scroll the current screen up and down. There are however, several other types of screens for more advanced data-entry procedures.

Pop-up Windows

Some screen fields display pop-up windows allowing you to enter additional information or select among multiple-choice items.

Within a pop-up window you can move around and enter data just as you do elsewhere. When you have finished entering your data, press [F10] to save your changes or [ESC] to close the window and return to the previous screen.

Selection lists

There are two basic kinds of Selection lists:

The first kind of selection list allows you to select a single item from a list of options. Highlight an item by using the mouse or arrow keys, then press [ENTER] or [F10] to make your selection.

The other kind of selection list lets you select multiple items at a time by toggling a selection dot next to each item. Use the mouse or arrow keys to move the highlight bar from item to item. Press [SPACE] or double-click on an item to toggle it on and off.

You can mark a range of items using [F7] to begin and [F8] to end a block. WordStar commands [CTRL] [K] [B] and [CTRL] [K] [K] also work. Once a range has been marked, use the [SPACE] to toggle all marked items. Use [ALT] [S] to select All items, [ALT] [C] to clear all selections.

Keyboard Control

The following keys are active when entering data in *MAKEWILD* and other *Wildcat!* utilities:

Keystroke	Operation
F1	Context sensitive help
SPACE	Toggles field choices if multiple choice
←	Move left one space in current field
→	Move right one space in current field
↑	Move to previous field
↓	Move to next field
ENTER	Move to next field
⇥ (tab) / SHIFT ⇥ (tab)	Move forward/back one field
HOME	Positions cursor on first character of current field, or the top of a list
END	Positions cursor at the end of current field, or the bottom of a list
PG UP	Move to previous screen (except in selection lists)
PG DN	Proceed to next screen (except in selection lists)
INS	Toggles insert/overtype mode. The cursor size indicates the status of the toggle. In Insert mode the cursor is thicker and characters are pushed to the right. In over-type mode the characters under the cursor are replaced by those that are typed, and the cursor is thinner
⇦ (backspace)	Delete character to left of cursor
DEL	Delete character immediately under cursor. The Backspace and Delete keys work the same regardless of the status of the Insert key

Some screens also use function keys for specific applications. Watch the status line on the bottom of the screen for available selections.

Most utilities also offer context sensitive on-line help. Use F1 or click both mouse buttons for help at almost any prompt! Press F1 again for a list of other help topics.

Video modes

25, 43 and 50 line display modes are supported in most *Wildcat!* utilities. The display mode active at startup is the one ordinarily used, but this can be overridden with a command line switch. See the following section on command line options.

Command line options — Utility programs

All *Wildcat!* support and utility programs have at least these five command line parameters.

Switch	Notes
/M	Force monochrome.
/C	Force color on.
/K	Kill mouse operation.
/5	VGA/EGA display mode in 43/50 line mode.
/?	Display this help screen.

Command line options — *wcFILE*

Keywords	Allowed Arguments
PROCESSMODE	Add/Update
FILEAREA	File area number (range checked against MAKEWILD)
PROCESSDUPES	CurrentArea/CurrentGroup/AllGroups
ADDIFEXISTS	True/False
STOREDPATH	Valid DOS file path
SCANSUBDIRS	True/False
STRICTCHKING	True/False
NEVEROVER	True/False
NEVERDEL	True/False
DONTCHARGE	True/False
FILEONCD	True/False
FREETIME	True/False
FILEOFFLINE	Yes/No/Verify
FILEDATE	FromDisk/Todays
FILESIZE	True/False
LASTACCESS	True/False

Keywords	Allowed Arguments
FILECOST	Numeric Value
NUMACCESSES	Numeric Value
UPLOADER	User Name/User ID
PASSWORD	String Value
DESCMODE	None/FromFile/DizSdi/Prompt
DESCFILE	Path\FileName of description file
DESCFILEPOS	FileStart,FileStop,DescStart,DescStop positions
AREAAFTERDESC	True/False
INTERNALZIP	True/False
ADDEXTDESC	True/False
MAKEKEYWORDS	True/False
LOADFILE	DOS filename\path of saved .WCF file
DOWNGROUP	Groupname or ALL
DOWNTIMEOUT	0 = retry infinitely, default is 5 minutes

Command line options — *wcMAIL*

Switch	Notes
[user name]	(local only) log on local wcMAIL user without loading *Wildcat!*
/DOWNLOAD	Download a mail packet
/UPLOAD	Upload a reply packet
/CONFIGURE	Go immediate to "Your settings" screen to configure user settings
/PRESCAN [user name]	Generate a prescan QWK (must use user name)
/OVERWRITE	(local only) Overwrite existing QWK packet
/RENAME	(local only) Rename duplicate QWK packet

Command line options — *wcPACK*

Switch	Notes
/A	Process all conferences
/B	Create renumber backup files
/C:[name]	Configuration file for automatic packing
/D ###	Delete messages older than ### days
/E	Kill private received messages
/I	Display rebuild statistics
/K:#####	Keep ##### messages
/L	Last messages read repair mode
/N	Toss saved messages to system
/R	Renumber and pack specified conferences
/S:###	Set *wcPACK* timeout in minutes
/T	Kill received file attachments

Command line options — *wcWAIT*

Switch	Notes
/R:#	Wait # minutes for nodes to report MAINTENANCE mode
/R:F	Wait forever for nodes to report MAINTENANCE mode
/S:#	Wait # seconds before continuing
/T:hh:mm	Wait until "hh:mm" (24 hour format) before continuing.

Command line options — *wcNODE*

Switch	Action	Notes
/A	Set all nodes for processing	Affects all nodes. Use this with one or more of the other command line options.
/D	Set node to go to DOS next	Immediately drops all idle nodes to DOS, and sets the DOS-next flag on active nodes.
/R	Take node down for maintenance	Prevents all nodes from taking calls, and closes all *Wildcat!* files so you can run *wcREPAIR, wcPACK* or other utilities that require *Wildcat!* to be down.
/S	Go to status screen when done	Displays a visual map of all nodes, with active and inactive status for each node.
/W	Wake node up from maintenance mode	Restores nodes to "Waiting for calls" after repair is completed.
/X	Remove caller from node	Immediately disconnects all callers on the specified nodes.

Command line options — *Wildcat!*

Command line options are used in CAT.BAT to modify the way *Wildcat!* comes on line to receive a call.

You can usually use more than one switch on your *Wildcat!* command line switch if they are entered in the correct order. Generally speaking, switches for operational parameters such as "Answer", "Debug", or "Timeslicing" should appear first, with a local or network logon switch as the *last* item on the command line.

Switch	Notes
/A	This is the Answer switch. It is used in any configuration where *Wildcat!* needs to be told to send the ATA answer command to the modem.
/B	This is the Baud rate switch used to start *Wildcat!* when another program, such as a front-end mailer, has already answered the phone. The /B should be followed by a space and then the DCE connection rate of the caller. Valid rates are 300 — 115K. If the uses a hardware error control protocol the baud rate should be immediately followed by MNP.
/C	Captures all Caller ID information reported by your modem to the activity log. Useful for debugging problems with Caller ID reporting.
/D	Debug mode. Displays available memory and stack in bottom right portion of the status line.
/LOCAL /L (optional)	Use the LOCAL switch to bypass the Idle Screen and go directly to the First Name prompt. *Wildcat!* exits to DOS after the local logon.
/NOVELL /N (optional)	The NOVELL switch is for NetWare 3.x and higher users (not NetWare Light) at local workstations. *Wildcat!* will match up the network name with the full name information in your NetWare user information, and logs you on automatically. *Wildcat!* exits to DOS after the call.
/RUN /R (optional)	Runs the *wcCODE* program you specify on the command line. *Wildcat!* exits to DOS when the *wcCODE* program is finished.
/SYSOP /S (optional)	The SYSOP switch gets the Sysop name from MAKEWILD, and prompts you for password only. *Wildcat!* exits to DOS after the call.

Switch	Notes
/USER /U (optional)	Add your first and last names and password on the command line to log on locally and bypass the logon prompt.
/?	Displays a list of valid connect speed result codes.

The local console

When *Wildcat!* is idle, or waiting for calls, your screen shows a list of commands, and a selection of statistics about your system.

A combination of Function keys and Alt keys control a number of activities while the system is waiting for calls, and while a caller is on-line. Although there is a relationship and some overlap between keys used while waiting for calls and when a caller is connected, we will review each separately for clarity.

Key to use	Perform this action	Comments
F1 or ALT S	System operator local logon	**Idle**: Logs in Sysop using name in *MAKEWILD*, prompts for password. **On-line:** Toggles the "Sysop Next" flag. When the current call has finished, *Wildcat!* will beep and prompt the Sysop to log in locally.
F2 or ALT K	Keyboard on/off	Enable/disable the keyboard. Useful if your cat has access to computer room!
F3 or ALT P	Printer on/off	Toggle printing of the activity log from on to off or off to on.
F4	Sysop page override on/off	Override "Sysop page" on/off settings from Sysop menu event manager.
F5	Bell on/off	Override "system bell" on/off settings from Sysop menu event manager.
F6	Start or End local chat or page	Begin or end local chatsession with current caller, or answer page from the caller.
F7	Add time	Give extra time to user for current call, in 5 minute increments.
F8	Remove time	Take time away from user in 5 minute decrements.

Key to use	Perform this action	Comments
F8	Change user's security	Pop up a list of security profiles. Arrow keys select and assign a security profile.
F10 or ALT X	Exit to DOS	**Idle:** Terminate *Wildcat!* and return to the DOS prompt. **On-Line:** Set the "DOS next" flag. After the current call is finished, *Wildcat!* will terminate.
ALT C	Toggle capture file	Records caller activity to CAPTURE.###
ALT D	DOS menu	**Idle:** Pop up the Idle Programs menu or shell to DOS. **On-Line:** Send a message to the caller that "Sysop has exited to DOS, please wait". *Wildcat!* then shells to DOS. Type EXIT to return to *Wildcat!*.
ALT L	Local logon	**Idle**: Prompt local user for name and password for local logon. **On-line:** Toggle the "Local Next" flag. When the current call has finished, prompts the local user to log in.
ALT U	User record window	Toggle the size of the status window from no status line, 1 or 2 lines, and full , user record display. The size of the status line on the BBS monitor has no effect on the number of lines per screen seen by the caller. This key is disabled when a caller is using the full screen editor.
ALT V	VGA/EGA toggle	Change screen mode between 25 lines and 43/50 (EGA or VGA required). This key is disabled when a caller is using the full screen editor.

Key to use	Perform this action	Comments
ALT W	Writing to screen toggle	Turn off all screen display to the local monitor. Try this on slower PC/XT systems, or under DESQview when there is no need to monitor caller activity.

On-line Message Keys

The ALT key used in conjunction with the numbers 1 through 9 will display the corresponding display file to the current caller. For instance, when you press ALT 1, *Wildcat!* displays ALT1.BBS, ALT 2 displays ALT2.BBS, and so on.

These messages might be used to inform a caller that their time available was being reduced to enable you to perform some maintenance. If you want to hang up on a caller, add @LOGOFF@ to the end of the display file.

Two other ALT key combinations are handled in a special way:

ALT 0 (zero)	Display ALT0.BBS to user and lock that user's name out of system for any future calls.
ALT – (minus)	Log user off immediately without notice or explanation.

Environment variables

Environment variables set operating parameters for multi-node systems, and override the corresponding information in *MAKEWILD*.

Variable	Parameters	Comments
WCNODEID	AUTO, 0, 1 to 10 or 1 to 250, depending on version	Override for the default node ID number specified in *MAKEWILD*.
WCPORTID	0 to 99	Override for the COM port number.
WCIRQID	0 to 15	Override for the IRQ.
WCBASEID	$###	Override for the communication port base address. The dollar sign must precede the three-digit hexadecimal base address, for instance $2F8
WCMDM	Name of MDM file	The modem file to use with this node.
WCMLOCAL	Path to *wcMAIL* local QWK and REP directory	Redirect local QWK and REP packets from node directory.
WCMTEMP	Path to *wcMAIL* temporary directory	Redirect *wcMAIL* temporary directory from node directory.
WCPROMPT	Path to prompt and menu files	Allows you to place prompts and menu files in a RAMdrive for faster operation. Supports additional languages in subdirectories below the directory named in this variable.

System Macros (@ codes)

@ codes are filled in with system information by *Wildcat!* when the file or prompt is displayed to the caller.

System Information

System Information is information pertaining to the current operational state of the BBS.

Macro	Notes
@BBS@	Name of BBS
@CONF@	Current conference name
@CONFOP@	Conference Sysop
@DATE@	Current system date
@LASTCALL@	Time of last caller
@ID@	Packet ID for mail door
@INCHAT@	Number of user active in *wcCHAT*
@NODE@	Node ID number for current connection
@NODE###@	Node ID status
@PREVON@	Name of last caller
@SUB##@	Substitution variables
@TCALLS@	Total calls received
@TFILE@	Total number of files
@TIME@	Current system time
@TMSG@	Total number of messages
@TUSER@	Total number of users
@SYSOP@	Sysop's full name
@VER@	*Wildcat!* version number
@YNDEF@	Default characters for Yes/No, specified in *MAKEWILD* for each language.
@XX@	Default color in Prompt file

User Record Information

User record information is extracted from the current caller's user file. You can use these macros to display information to the caller such as name, address, current file statistics, and so on.

Macro	Notes
@ACCBAL@	Account balance
@ADDR1@	Address 1
@ADDR2@	Address 2
@ALIAS@	Alias name
@BDATE@	Birthday
@CALLS@	Total number of logons
@CITY@	City
@COMPANY@	Company
@CPU@	Computer type
@DATA@	Data phone number
@DAYBYTES@	Daily download K
@DLKLIMIT@	Maximum daily download K limit
@DOWNK@	Total download K
@DOWNS@	Total number of downloads
@EXDATE@	Expiration date
@EXPDAYS@	Days until user's expiration date
@FAX@	Caller's fax number from user record
@FIRST@	First name of caller
@FROM@	Location of caller
@KBLEFT@	Download K left today
@LAST@	Last name of caller
@LASTNEW@	Last new files search date
@LASTON@	Date of last call

Macro	Notes
@LEFT@	Time remaining this call
@MAXDK@	Maximum download K per day
@MAXDL@	Downloads per day
@MAXRATIO@	Maximum download ratio
@MEMO@	Memo date
@MEMO1@	Comment 1
@MEMO2@	Comment 2
@MSGSLEFT@	Total number of messages posted
@NETBAL@	Netmail balance
@PHONE@	Phone number
@PROTOCOL@	Default transfer protocol
@SEC@	Security profile
@SINCE@	Date of first call
@STATE@	State
@TIMEON@	Time on system this call
@UPK@	Total upload kilobytes
@UPS@	Total number of uploads
@USER@	Full name
@USERID@	Unique User ID for caller
@ZIP@	Zip code

Connection variables

Connection variables are passed to *Wildcat!* at the time the current call is answered.

Macro	Notes
@BAUD@	Current baud rate
@CALLID@	Caller ID string from modem
@CONNECT@	Connect string from modem
@MODEM@	Name of modem from MDM file

Screen control codes

Screen control codes affect the way display files are shown to the caller. You can add or suppress screen pauses (the -Continue- prompt), allow or suppress the "Previous page" option when displaying files, and display portions of a file only to callers with a specific security profile.

Macro	Notes
@BELL@	Beeps the speaker
@CLS@	Clears the screen
@ELSE@	Else condition for IFSEC
@ENDIF@	Ends IFSEC
@ENTER@	Requests ENTER to Continue prompt
@IFSEC=[sec]@	Display text if security profile matches
@LOGOFF@	Log the user off
@PAUSE@	Pauses screen display
@NOCODE@	Turns off all further @ prompts in file
@NOPAUSE@	Turns off pause prompts
@NOPREV@	Turns previous mode off
@NOSTOP@	Turns off user's ability to abort file
@STOP@	Turns on user's ability to abort file

Color Codes

The color codes system follows the format @BF@ where B is the background color and F is the foreground color. Blinking is controlled via background choice.

Hex value	Screen Color	Background	Foreground
0	Black	Normal	Normal
1	Blue	Normal	Normal
2	Green	Normal	Normal
3	Cyan	Normal	Normal
4	Red	Normal	Normal
5	Magenta	Normal	Normal
6	Brown	Normal	Normal
7	White	Normal	Normal
8	Black	Blinks FG	Hi Intensity
9	Blue	Blinks FG	Hi Intensity
A	Green	Blinks FG	Hi Intensity
B	Cyan	Blinks FG	Hi Intensity
C	Red	Blinks FG	Hi Intensity
D	Magenta	Blinks FG	Hi Intensity
E	Brown	Blinks FG	Hi Intensity
F	White	Blinks FG	Hi Intensity

ANSI codes

ANSI codes are used for color and cursor placement in .SCR files. They should not ordinarily be used in .BBS or .RIP display files. Additional ANSI codes are also available for cursor movement and other functions, for further information consult your DOS manual.

A good screen drawing utility for creating .SCR files is THEDRAW, available for download from MSI HQ BBS.

Command	ANSI CODE	DOS COLOR #
ALL ATTR. OFF	ESC [0m	
BLACK BG	ESC [40m	
BLACK FG	ESC [30m	0
BLINK ON	ESC [5m	add 128 to color #
BLUE BG	ESC [44m	
BLUE FG	ESC [34m	1 (bold = 9)
BOLD ON	ESC [1m	add 8 to color #
CANCEL ON (invisible)	ESC [8m	
CYAN BG	ESC [46m	
CYAN FG	ESC [36m	3 (bold = 11)
ERASE DISPLAY	ESC [2J	
GREEN BG	ESC [42m	
GREEN FG	ESC [32m	2 (bold = 10)
MAGENTA BG	ESC [45m	
MAGENTA FG	ESC [35m	5 (bold = 13)
RED BG	ESC [41m	
RED FG	ESC [31m	4 (bold = 12)
REVERSE VIDEO ON	ESC [7m	
UNDERSCORE ON	ESC [4m	TTL Mono only
WHITE BG	ESC [47m	

Command	ANSI CODE	DOS COLOR #
WHITE FG	ESC [37m	7 (bold = 15)
YELLOW BG	ESC [43m	
YELLOW FG	ESC [33m	6 (bold = 14)

Node information

Node information can be viewed and edited from several locations: the node edit screen on the Sysop menu, while logged onto *Wildcat!;* from *wcNODE*, and from *wcREPAIR*.

Setting	Notes
Callers name	The name of the caller currently logged on, if any.
From	Extracted from the "from" field in the current caller's user record.
Security	The current caller's security level. To change the current caller's security, press F2 and select the new profile from the pop-up list.
Baudrate	The current caller's baud rate.
User status	What the caller is currently doing on the BBS. For instance, file transfer, entering message, etc. —press F2 to pop up a list.
Time called	Used by external programs such as *wcCHAT* and *wcMAIL* to show caller activity in Who Is Online command.
Activity	The conference joined by the current caller.
Logoff time	Based on the caller's daily time limit, this is the time the caller will be logged off with no time remaining.
Node status	Compare with "User status". This is what the node is currently doing, as opposed to what the caller is doing. For instance, a node might be down, up, signing on, logged on, etc.
Sysop window	The size of the current Sysop status window at the bottom of the node screen. Press F2 to pop up a list of options.
Last caller	The name of the previous caller to the node.
Last logoff	The time the previous caller logged off.
Total calls	The total number of calls this node has received.
Lowest baud	The lowest baud rate currently allowed on this node. Set this from the Sysop menu command "Node Management", or automatically from the "Events" editor.

Setting	Notes
Quote index	The current record number in *Wildcat!'s* "Quote of the day" file QUOTES.BBS.
Node pages	Number of "Pages" pending for display to this user. This is an internal value and would not normally need editing.
Paging Sysop	Is the current caller paging the Sysop?
On-line locally	Is the current caller logged on locally?
Capture active	Is the capture file open for this node?
MNP connection	Has *Wildcat!* detected hardware error correction for this call?
Printer logging	Is *Wildcat!* logging the current node's activity to the printer?
Sysop pages allowed	Is this node set to allow Sysop paging? Set this from the Sysop menu command "Events"
System bell	Is the system bell on for this node?
Keyboard active	Is the keyboard on for this node?
Screen writes	Is this node writing screen output to the local screen?
EGA/VGA display mode	Is this node currently in 43/50 line mode?
Drop current caller	Have you signaled *Wildcat!* to disconnect the current caller?
Bring node down	Have you set this node to go to DOS-Next (F10)?
Sysop next	Have you set this node to let the Sysop log on locally after the current call (F1)?
Local logon next	Have you set this node to let a user log on locally after the current call (ALT L)?
Event next	Does *Wildcat!* have an event scheduled for this node after the current call?

User database

The user database stores user information as one record for each caller. You can view and modify this information from the Sysop command "User Edit".

Field	Notes
Name	The user's first and last names.
From	Where the user is from.
Phone (Voice, Data, Fax)	The user's voice, data and fax phone numbers.
Last Call	The date and time of the user's last call to the BBS
Comments 1 - 5	Up to 5 lines of info can be entered by Sysop in user record.
Company	The name of the user's company or organization.
Address 1 - 2	Street address, 2 lines.
City	City
State	State
Country	Country
Zip	Zip code or postal code
Seclevel	The user's security profile
Expdate	The user's expiration date.
User Since	Date and time of the user's first call to the BBS
D.O.B.	User's date of birth
Memo Date	This can be any date. Not used by *Wildcat!* but available to other applications.
# Calls	How many times has the user called the BBS?
Page Available	Is the user available for page?
Display	The user's graphic mode: No color, Color ANSI, RIPscrip or Auto Detect.
E-Prompt	Erase the - Continue - prompt?
Hot keys	Process single character commands without carriage return?

Field	Notes
File Display	Display files on one line, two lines, or full file description?
Editor	User's preferred editor: Line editor, Fullscreen editor or Select
Protocol	User's preferred transfer protocol from list of internal and external protocols available to security profile, or, Select each time.
N-mail balance	Netmail account balance, adjusted automatically by Fidonet mailer.
Acct. bal.	User's account balance, adjusted automatically when user downloads files with charge attached.
Help level	User's menu level: Novice, Regular or Expert.
Computer type	What kind of computer does the caller use?
Alias	Caller's alias name. Required for alias-only conferences.
Title	User's title. Shown beside name in messages.
Sex	User's gender: male, female or not disclosed.
New files	Date and time of caller's last new files search.
Total upload Kb	Total amount in Kilobytes of file uploads
Total download Kb	Total amount in Kilobytes of file downloads
Minutes logged	The total number of minutes connected since the user's first call.
Novell name	Caller's NetWare logon name, for local auto-notification of new mail in *Wildcat!*.
Secondary 1 - 5	Up to 5 Security Override profiles for additional access
Read mail mode	User's preferred message display mode: Scroll, Clear Screen, Keep Header
Default language	User's default language, if multiple languages are supported
Quote reply	Does user want to quote previous message when replying?

Field	Notes
Lines per page	How many lines to display on screen between - Continue - prompt? Default 23.
Msgs written	How many messages has the caller written since his first call?
Uploads	How many files has the caller uploaded since his first call?
Downloads	How many files has the caller downloaded since his first call?
Time left	How many minutes remain to be used for the current day?
Daily DL	How many files did the caller download today?
Daily DK	How many Kilobytes of files did the caller download today?
Last conference	What conference is the caller currently in?
Locked out	Is the caller locked out of the BBS?
Never delete	Prompts for confirmation before deleting this user record.
Logon siren on	Sound a 5 second alarm when this caller logs in?
Hide private	Should the caller see private messages addressed to others?
Hide deleted	Should the caller see deleted messages?
User capture on	Capture this user's on-line activity to CAPTURE.### ?
Sorted lists	Sort file and conference lists alphabetically rather than by number?
Mail packer	User's preferred mail packer, for *wcMAIL*.
Max messages per conf	Maximum messages per conference, for *wcMAIL*.
Max messages per packet	Maximum messages per QWK packet, for *wcMAIL*.
Max attach size (K)	Maximum file attachment size in Kilobytes, for download from *wcMAIL*.
Packet format	Use which packer (ZIP, ARC, etc.) defined for *wcMAIL*, or Select each time?

Field	Notes
Export private mail	Should any private mail addressed to this user be exported by *wcMAIL* to net Sysop status callers if this user name is registered in *wcMAIL* network user database?
Send msgs from you	Add messages from caller to caller's *wcMAIL* packet?
Scan for new files	Add newfiles list to caller's *wcMAIL* packet?
Send new bulletins	Add new bulletins to caller's *wcMAIL* packet?
Hangup after uploads	Should *wcMAIL* disconnect caller after receiving uploaded REP packet and process replies off-line?
Send all attachments	Should *wcMAIL* send all file attachments regardless of size?
Show script commands	Should *wcMAIL* send script-friendly command tokens in addition to regular prompts?
Co-sysop - Messages	Show Sysop commands to caller at end of message prompt?
Locked out	Is caller locked out of this conference?
Title off	Should caller's title be displayed in this conference?
Selected conference	Is this conference selected in the "Update conf scan/read" command?
Last message read	Message number of highest message read in this conference.

File database

The file database stores user information as one record for each file. You can view and modify this information from the Sysop command "File Edit".

Field	Notes
File name	The name of the file, as it appears in *Wildcat!'s* file lists.
Date	Date and time of the file
Last access	The last time the file was downloaded
Size	Size of the file in bytes
Uploaded by	The uploader's name
Password	Password to download or view this file
Key 1 - 6	Keywords stored in the file database index, for faster searches. Extracted automatically from the file description by *Wildcat!* or entered manually by the uploader, depending on *MAKEWILD* setting.
Area	File area associated with this file
Short desc.	Up to 70 characters to describe this file, shown on *Wildcat!'s* file lists.
Stored path	Actual path of file on disk, if it is not stored in the path associated with its file area.
Times downloaded	How many times the file has been downloaded
Cost	Cost to download this file, deducted from caller's account balance.
On CD-ROM	Is the file stored in a different path from the one associated with its file area?
No charge	Do not count this file against a caller's up/download ratio or daily download total.
Never overwrite	Don't allow the uploader or Sysop to copy over this file by uploading one with the same name
Never delete	Don't allow *Wildcat!* or *wcPRO* to delete this file, even if it matches deletion criteria.

Field	Notes
Upload in progress	Is the file currently being uploaded?
Stored off-line	Is the file listed in the database but not stored on the disk?
Long description.	Select this item to add, delete or edit the long description for this file.
Failed scan	Did SCANFILE.BAT report an error while processing this file after it was uploaded?

Program files

These executable files normally reside in your *Wildcat!* home directory.

Filename	Program
AREPAIR.EXE	Repairs damaged Group file databases.
CNVUINFO.EXE	Converts *Wildcat!* 4 USERREC.BIN door file to *Wildcat!* 3 compatible USERINFO.DAT
DOORTEST.EXE	Program to test operation of *Wildcat!* door and menu hook functions.
DOORWAY.EXE	(Included with *Wildcat!* Multiline Platinum version only). COM port I/O redirection and security enabling non-door applications to run on the BBS
GIFSCOPE.EXE	Command line utility to merge multiple .GIF images into a single "thumbnail" image.
MAKEECHO.EXE MAKEECHO.HLP	Configuration program for *wcECHO* QWK mail echo program Online help for *MAKEECHO*
MAKEMENU.EXE MAKEMENU.OVR MAKEMENU.HLP	Menu creation and editing utility Online help for *MAKEMENU*
MAKEQUES.EXE MAKEQUES.HLP	Questionnaire creation and editing utility Online help for *MAKEQUES*
MAKEWILD.EXE MAKEWILD.OVR MAKEWILD.HLP	Main *Wildcat!* configuration utility Online help for *MAKEWILD*
TIMEOUT.EXE	COM port monitor TSR for timekeeping during external protocols
TNETCONV.EXE	Conversion utility for *Wildcat!* 3 TNET configuration files, creates configuration files for *wcECHO*
UTIEXPRT.EXE UTIHIGH.EXE HTIIMPRT.EXE UTILIST.EXE UTIVER.EXE	UTI (Universal Text Interface) drivers for PostLink echomail software.

Filename	Program
VZ.EXE	Archive file viewer, lists contents of compressed file to screen or text file.
WCCHAT.EXE WCCHAT.OVR	*wcCHAT* multi-user chat module for *Wildcat!* 4
WCDRAW.EXE WCDRAW.OVR WCDRAW.DAT WCDRAW.HLP	*wcDRAW* ASCII and *Wildcat!* @-code editor for menus, display files, help files and bulletins. Contains information on display file names and descriptions Online help for *wcDRAW*
WCECHO.EXE	QWK packet echomail tosser
WCFILE.EXE WCFILE.HLP	File database utility to add and update files and descriptions. Online help for *wcFILE*
WCMAIL.EXE WCMAIL.OVR	QWK Offline mail downloading module for *Wildcat!*
WCMODEM.EXE WCMODEM.HLP	Modem testing and configuration utility Online help for *wcMODEM*
WCNODE.EXE WCNODE.HLP	Node viewing and management utility Online help for *wcNODE*
WCPACK.EXE WCPACKX.EXE	Message base management utility to purge deleted messages, delete old mail, and renumber message files
WCPROMPT.EXE WCPROMPT.HLP	Language file editor for *Wildcat!*, *wcMAIL* and *wcCHAT* Online help for *wcPROMPT*
WCREDIR.EXE	Redirects screen output to serial port; used with GIFSCOPE.
WCREPAIR.EXE WCREPAIR.HLP	Database repair and management utility for *Wildcat!* Online help for *wcREPAIR*
WCWAIT.EXE	Delays execution of batch file commands by time or node status
WILDCAT.EXE WILDCAT.OVR	Main *Wildcat!* BBS program
WUPGRADE.EXE	Upgrade your earlier *Wildcat!* version (Test Drive, Shareware, versions 1, 2, and 3) to *Wildcat!* 4.

Configuration files

Configuration files are created by *Wildcat!* and its configuration programs, and store information about the basic operational parameters of your BBS.

Filename	Location	Notes
AUTONODE.DAT	*Wildcat!* home directory	Created by *MAKEWILD* when the "Auto-Determine Node ID" feature is turned on. It is a binary file containing information on the availability of node numbers for auto-assignment, and can be viewed or edited by *wcNODE*.
CHANNELS.DAT	*Wildcat!* home directory	Definitions for each *wcCHAT* channel.
CONFDESC.DAT CONFDESC.IX CONFDESC.UX	*Wildcat!* home directory	Contains all conference information entered in *MAKEWILD*.
DOOR.DAT	*Wildcat!* home directory	Tracks the status of each door and menu hook on the system, and prevents multiple access unless a door is tagged as multi-user. Created by *MAKEWILD*.
EVENT.###	*Wildcat!* home directory	Scheduled events for each node, created with the Event editor *Wildcat!*. The ### is filled in with the 1 to 3 digit node ID number.
FILEAREA.DAT FILEAREA.IX FILEAREA.UX	*Wildcat!* home directory	Contains all file area definition information entered in *MAKEWILD*.
FILELOCK.DAT	*Wildcat!* home directory	Contains locking information entered in *MAKEWILD* for multiple CD-ROM devices.
IDLEPGM.DAT	*Wildcat!* home directory	Contains information entered in *MAKEWILD* to run specified programs from the Idle screen.
LANGDESC.DAT	*Wildcat!* home directory	Contains alternative languages and "Y" and "N" equivalents.

Filename	Location	Notes
MAKEWILD.DAT	*Wildcat!* home directory	Contains basic system information entered in *MAKEWILD* about your BBS: paths, parameters, toggles etc.
NODEINFO.DAT	Path for node information file	Records the last caller, node call count, status of Page, Bell, Printer, Screen writing, etc. for each node. Created by *Wildcat!*
SECLEVEL.DAT	*Wildcat!* home directory	Contains all security profile references entered in *MAKEWILD*.
WCCHAT.PRM WCCHAT.DEF	Language directory	The .PRM version of this data file contains the text of all *wcCHAT* system prompts. It can only be modified using *wcPROMPT*.
WCMAIL.PRM WCMAIL.DEF	Language directory	The .PRM version of this data file contains the text of all *wcMAIL* system prompts.
WILDCAT.PRM WILDCAT.DEF	Language directory	The .PRM version of this data file contains the text of all *Wildcat!* system prompts.
XXXXXXXX.MDM	Modem file directory	Optional modem configuration files distributed with *Wildcat!* or created by *wcMODEM*, and referenced with the SET WCMDM= environment variable.

Control files

Control files are used by *Wildcat!* and its utilities to determine how your BBS should react to certain kinds of input from your callers.

Filename	Location	Notes
`[chname].BAD`	Chat file directory	Profanity filter file for channel.
`ALL.OK`	Node directory	This is a dummy file that must exist for testing the success of some external protocols. It may contain any text desired since the contents are never displayed.
`BADALIAS.LST`	*Wildcat!* home directory	Contains alias names that *may not be used* by callers. It is a plain ASCII text file containing one name per line.
`BADFILES.LST`	*Wildcat!* home directory	Contains the names of files which *may not be uploaded*. It is a plain ASCII text file containing one filename per line.
`BADKEYS.LST`	*Wildcat!* home directory	Contains words *to be excluded* from the file keywords allowed when entered by users, or when auto-generated from the description. It is a plain ASCII text file containing one word per line.
`BADNAMES.LST`	*Wildcat!* home directory	Contains words that cannot be used as a caller's logon name. It is a plain ASCII text file containing one name per line.
`BADPHONE.LST`	*Wildcat!* home directory	This file contains phone numbers that cannot be used as a caller's phone number. It is a plain ASCII text file containing one phone number per line.
`CHAT.DAT`	*Wildcat!* home directory	Created by *wcCHAT*. This stores the combined private and public channels used by *wcCHAT*.

Filename	Location	Notes
GROUP###.LST	Conference 0 display directory	Used for distributed mail, and to send a message in the corresponding GROUP###.BBS file during logon. Contains a list of user names, one per line. The ### is filled in with a 1 to 3 digit number.

Database Files

All user, file and message information in *Wildcat!* is stored in a set of database files.

Filename	Location	Notes
`ALLUSERS.DAT`	Path for user database	User database file
`ALLUSERS.IX`		Key table for user database
`ALLUSERS.DIA`		Dialog file for user database
`ALLUSERS.MSG`		Safety mode file for user database
`USERCONF.DAT`		Conference message pointers for user database
`ALLFILES.DAT`	Path for file database	File database file
`ALLFILES.IX`		Key table for file database
`ALLFILES.QX`		Quick Index file for file database
`ALLFILES.DIA`		Dialog file for file database
`ALLFILES.MSG`		Safety mode file for file database
`MSG#####.DAT`	Conference path for message files	Message conference data file
`MSG#####.IX`		Message conference index file
`MSG#####.CRC`		Message conference duplicate checking file

LOG files

Wildcat! and its utility programs record their activity in log files. Most files are plain ASCII text, that you can read with a file browser, text editor, or word processor. Some files such as the Activity Log can be viewed from within *Wildcat!*.

Filename	Location	Notes
[chname].DAT	Chat file directory	Channel data file shared by all nodes in a channel.
[chname].LOG	Chat file directory	Capture file for channel
ACTIVITY.###	*Wildcat!* home directory	Records caller activity and system information for each node. The ### is filled in with the 1 to 3 digit node number.
CAPTURE.###	*Wildcat!* home directory	Records a capture file of caller activity for each node. The ### is filled in with the 1 to 3 digit node number.
ERROR.LOG	*Wildcat!* home directory	Records information about system errors, including node number that experienced the error.
LCHAT.###	*Wildcat!* home directory	Records the text of the conversation between the Sysop and a caller during Sysop chat. The ### is filled in with the 1 to 3 digit node number.
PRIV###.DAT	Chat file directory	Channel data file for private talk. The ### is filled in with the node ID number of the caller.
HANDLES.LOG MAKEECHO.LOG MAKEMENU.LOG MAKEWILD.LOG WCCHAT.LOG WCECHO.LOG WCMODEM.LOG WCREPAIR.LOG	*Wildcat!* home directory	Log files created by each *Wildcat!* utility program..

Temporary Files

Temporary files are files created for a specific purpose, to store information to be passed to another program, or to store the program's current operational state while it executes another application. These files are deleted automatically when the specific procedure that created them has finished.

Filename	Location	Notes
BULLSTXT.ZIP	Node directory	Temporary archive of bulletin files created when caller downloads bulletins.
CHTNAMES.DAT	*Wildcat!* home directory	Stores user names and info while users are in chat.
DOOR.SYS	Node directory	ASCII information on the caller to be passed to doors and menu hooks
FIDOENTR.BAD	Node directory	Temporary file created by 3rd party Fido utility, causes *Wildcat!* to abort a message entered in a "Fido Netmail" conference type.
FIDOENTR.DAT	Node directory	Temporary file containing message header information, created when caller enters a message in a "Fido Netmail" conference type.
FILEINFO.DAT	Node directory	ASCII info of caller's current marked files, passed to doors and menu hooks.
INETENTR.BAD	Node directory	Temporary file created by 3rd party Internet E-mail utility, causes *Wildcat!* to abort a message entered in an "Internet Email" conference type.
INETENTR.DAT	Node directory	Temporary file containing message header information, created when caller enters a message in an "Internet Email" conference type.
PAGE###.TXT	Node directory	User page message, created in the destination user's node directory.

Filename	Location	Notes
PROFILE.DAT	Node directory	Secondary profile information, used by *Wildcat!* to check access.
SYSINFO.DAT	Node directory	ASCII information of current system settings, passed to doors and menu hooks.
TMPFILES.DAT	Node directory	Stores long paths of certain marked files.
TPROFILE.DAT	Node directory	Same as above, used for temporary users.
USERREC.BIN	Node directory	Contains a complete binary record of caller's user file information, passed to doors and menu hooks.
VIEWCOMP.DAT	Node directory	Text file displayed to caller by *Wildcat!* on return from VIEWCOMP.BAT external file viewing function.
WCMAIL.###	*Wildcat!* home directory	Temporary swap file created by *wcMAIL* during shell to DOS for execution of packers and external protocols.
WILDCAT.###	*Wildcat!* home directory	Temporary swap file created by *Wildcat!* during shell to DOS for execution of Doors and Menu Hooks.
UPLOAD.LOG	Node directory	For wcCODE apps that want to know what files have been uploaded.

.WCX, .RUN and .BAT files

These files are automatically executed if they exist in the paths specified on the following list. They are used to launch external applications or process user information.

Filename	Location	Notes
DOOR#.WCX DOOR#.RUN DOOR#.BAT	Home directory Node directory Batch directory	Individual batch files where the # is replaced by the actual number of the door as indicated in DOORS.BBS.
DROPDOS.WCX DROPDOS.RUN DROPDOS.BAT	Home directory Node directory Batch directory	This batch file contains the commands to execute a remote drop to DOS.
EVENT.WCX EVENT.BAT	Home directory Node directory	This file is created by *Wildcat!* whenever an event is executed requiring batch file operation. The specified batch file is copied to EVENT.BAT, and is executed from the node directory
FIDOENTR.WCX FIDOENTR.RUN FIDOENTR.BAT	Home directory Node directory Batch directory	This file is for third-party program to add the message header details for Fidonet mail. The message header will be passed to the third party program for return to *Wildcat!* when the batch file terminates.
FILEDESC.WCX FILEDESC.RUN FILEDESC.BAT	Home directory Node directory Batch directory	Executed by *Wildcat!* after each upload, to extract FILE_ID.DIZ and DESC.SDI for import into *Wildcat!* file database record.
LOGON.WCX	Home directory	*wcCODE* application executed automatically after a caller has logged onto the BBS. This program will execute whether or not the caller uses a quick logon.

Filename	Location	Notes
LOGON1.RUN LOGON1.BAT	Home directory Node directory Batch directory	Executed after a user has logged onto the BBS, right after the user has entered his password and verified birthdate and/or phone number. This batch file will execute whether or not the caller uses a quick logon.
LOGON2.RUN LOGON2.BAT	Home directory Node directory Batch directory	Executed after a user has logged onto the BBS, right after the BBS has checked for mail. This batch file will execute whether or not the caller uses a quick logon.
PRELOG.WCX	Home directory	*wcCODE* application executed after *Wildcat!* answers the phone, but before prompting the caller for name and password.
POSTCALL.WCX POSTCALL.RUN POSTCALL.BAT	Home directory Node directory Batch directory	Executed by *Wildcat!* after every call as a call processing event, before current user information is flushed from memory. Can be used to update user.
SCANFILE.WCX SCANFILE.RUN SCANFILE.BAT	Home directory Node directory Batch directory	Executed by *Wildcat!* after each upload, for 3rd party file scanning and verification utilities.
THMBNAIL.WCX THMBNAIL.RUN THMBNAIL.BAT	Home directory Node directory Batch directory	Executed when caller requests a thumbnail composite picture of selected GIF files. Executes *wcREDIR* and GIFSCOPE, creates thumbnail GIF file with filename assigned in *MAKEWILD*.
VIEWCOMP.WCX VIEWCOMP.RUN VIEWCOMP.BAT	Home directory Node directory Batch directory	This file is used when an external file packing or archiving protocol is used to view a compressed file.

Questionnaire files

Questionnaire files are created and edited with *MAKEQUES*, the questionnaire editor for *Wildcat!* BBS. These questionnaire files are all located in the path for Questionnaire Files, configured as part of the Conference Definition in *MAKEWILD*. Note that you may, if you wish, specify a separate Questionnaire file path for each conference.

See Chapter 6, *Customizing*, for more information on creating, editing, and using questionnaires.

Filename	Location	Notes
`QUES####.###`	Conference questionnaire directory	Questionnaire answer file. #### is filled in with the questionnaire number, while .### is filled in with the one to three-digit node number.
`QUES####.DAT`	Conference questionnaire directory	Questionnaire files accessible from the Questionnaire menu. #### is filled in with the questionnaire number.
`QUESCLOS.DAT`	Conference 0 questionnaire directory	Displayed to a new user if the BBS is set up as Closed Questionnaire.
`QUESDATE.DAT`	Conference 0 questionnaire directory	Displayed to a caller if their last called date is older than the filedate of the questionnaire.
`QUESNEW.DAT`	Conference 0 questionnaire directory	Displayed to a new user if the BBS is set up as Open
`QUESTION.BBS`	Conference questionnaire directory	This is the questionnaire menu, listing the questionnaires available.

Display Files

A display file in *Wildcat!* is a text file displayed to the caller for some purpose. These files are all located in the path for Display Files, configured as part of the Conference Definition in *MAKEWILD*. Note that you may, if you wish, specify a separate display file path for each conference.

Each of the following files can have .BBS, .SCR or .RIP extensions, depending on the display type.

Filename	Location	Notes
`[chname].BBS`	Conference display directory	Displayed to callers when they enter the corresponding channel name.
`ALT0`	Conference display directory	Displayed when ALT 0 (Zero) is pressed. Caller is logged off and locked out.
`ALT1 - ALT9`	Conference display directory	Displayed when ALT +Number is pressed.
`BADFILES`	Conference display directory	Displayed on attempt to upload a file in BADFILES.LST
`BADNAMES`	Conference display directory	Displayed when logging in with a name in BADNAMES.LST
`BADPHONE`	Conference display directory	Displayed when entering a phone number in BADPHONE.LST
`BEGCHAT`	Conference display directory	Displayed to caller when Sysop enters chat with F8.
`BIRTHDAY`	Conference display directory	Displayed on caller's birthday.
`CHAT`	Conference display directory	Displayed when a caller selects "enter *wcCHAT*" command
`CLOSED`	Conference display directory	Displayed when a new caller calls a Closed system
`CNF#####`	Conference display directory	Current conference specific display file. Displayed when a caller joins the conference.

Filename	Location	Notes
COMMENTS	Conference display directory	Displayed when user selects Comment to Sysop
CONFLST	Conference display directory	Displayed when user asks for a list of conferences.
CONFLST#	Conference display directory	Conference list, based on menu level.
DKLIMIT	Conference display directory	Displayed when a user reaches their daily download K limit.
DLIMIT	Conference display directory	Displayed when a user reaches their daily download limit.
DOORS	Conference display directory	Displayed when a user selects the Doors menu.
DOWNBAD	Conference display directory	Displayed to the caller after a download failure.
DOWNLDOK	Conference display directory	Displayed to the caller after a successful download.
DOWNLST#	Conference display directory	Download list based on menu level.
DUPFILE	Conference display directory	Displayed when a duplicate file is uploaded to the file area.
DUPENAME	Conference display directory	Displayed if a user signs on with a duplicate user name.
EDITDISP	Conference display directory	Displayed when a user changes their default editor.
ENDCHAT	Conference display directory	Displayed after a Sysop chat is ended.
EXPIRED	Conference display directory	Displayed to a user after their expiration date has passed.
EXPTDISP	Conference display directory	Displayed when the user changes their menu level.

Filename	Location	Notes
FILEDISP	Conference display directory	Displayed when the user changes their file display mode.
FILELST	Conference display directory	Displayed when caller selects List Files command. Lists file areas.
FILELST#	Conference display directory	File Area list based on menu level.
GOODBYE	Conference display directory	Displayed to the user when logging off the system.
GROUP###	Conference display directory	Displayed to a caller whose name is in GROUP###.LST. This file must be in the Conf 0 display file path.
GROUPS#	Conference display directory	Displayed to callers who select the File Groups menu command.
HELLO1 .. HELLO9	Conference display directory	Displayed when a caller first logs into the system.
HELLO1N .. HELLO9N	Conference display directory	Displayed to a caller during logon, only when the caller's last call date predates the creation date of the HELLO#N file.
LANGDISP	Conference display directory	Displayed when a user changes their default language
LOCALUP	Conference display directory	Displayed before the start of a local logon upload.
MAIL	Conference display directory	Displayed when a caller selects "enter *wcMAIL*" command
MULTIUSR	Conference display directory	Displayed when a new user logs in with a duplicate name.
NEWSLTR	Conference display directory	Displayed during logon if file date is newer than last logon date, and from Newsletter menu command.
NEWUSER	Conference display directory	Displayed to first-time callers on initial logon.

Filename	Location	Notes
NO######	Conference display directory	Displayed to users calling in at a disallowed baud rate.
NO-###	Conference display directory	Displayed to user when denied access to a node.
NODE###	Conference display directory	Displayed after PRELOG to callers connecting to node.
NOSYSOP	Conference display directory	Displayed on Comment to Sysop if conference Sysop blank.
PACKDISP	Conference display directory	Displayed when user changes the default mail packer.
PAGED	Conference display directory	Displayed if the Sysop is unavailable when paged.
POSTRIP.RIP	Conference display directory	RIP version only. Creates text window for following prompt or display file.
PREDOWN	Conference display directory	Displayed when selecting Download, after filename prompt.
PRELOG	Conference display directory	Displayed on initial contact to the BBS, before NODE### and logon prompt.
PRESRCH	Conference display directory	This file is displayed just before a user starts a file search.
PREUP	Conference display directory	Displayed on selecting the Upload file option
PROTDISP	Conference display directory	Displayed when user changes their default protocol.
PROTOCOL	Conference display directory	Displayed when a user is asked for a default protocol.
QUOTES	Conference display directory	Displays "Quote of the Day" to the user after logon.
RATIO	Conference display directory	Displayed when user exceeds their download ratio.

Filename	Location	Notes
READDISP	Conference display directory	Displayed when user changes their message read mode.
READFILE	Conference display directory	Displayed when Read a text file option is selected.
SCRNDISP	Conference display directory	Displayed when user changes their screen display mode.
SECERROR	Conference display directory	Displayed if incorrect logon information is supplied.
SETALIAS	Conference display directory	Displayed when caller changes their alias name.
SRCHNAME	Conference display directory	Displayed before a Name search is performed.
THMBNAIL	Conference display directory	This file is displayed when a user selects the Thumbnail viewer.
U#######	Conference display directory	Displayed to corresponding user ID once during logon, then deleted.
WCCHAT	Conference display directory	Displayed at startup of *wcCHAT*
WCMAIL	Conference display directory	Displayed at startup of *wcMAIL*.
WCMMAIN	Conference display directory	The main menu for *wcMAIL*
UPLIST#	Conference display directory	Upload Area list based on menu level.
UPLOADOK	Conference display directory	Displayed on completion of a successful upload.
WARN##	Conference display directory	Displayed when caller is within ## days before expiration. The ## can be replaced with 15, 30, 45 or 60.

Filename	Location	Notes
WCPRO	Home directory	Displayed when caller selects "System Statistics" menu command.
SLISTFT1 SLISTFT2 SLISTFTR FLISTIFT FLISTHDR FAREAHDR FAREAFTR GAREAHDR GAREAFTR SAREAFTR	Conference display directory.	Used by ANSI file lister.

Bulletins

The following files are located in the Bulletin directory specified in the Conference Definition section of *MAKEWILD*.

Each of the following files can have .BBS, .SCR or .RIP extensions, depending on the display type.

Filename	Location	Notes
BULLETIN	Conference bulletin directory	The bulletin menu. Displayed when caller selects Bulletin option.
BULL####	Conference bulletin directory	The "#" is the bulletin number, i.e. BULL14 would be bulletin number 14.

Help

A help file in *Wildcat!* is a file displayed to the caller when they request help on any program function. These files are all located in the path for Help Files, configured as part of the Conference Definition in *MAKEWILD*.

Each of the following files can have .BBS, .SCR or .RIP extensions, depending on the display type.

Filename	Location	Notes
CHAT	Conference help directory	Help for /? in *wcCHAT*
CHATMOD	Conference help directory	Help for /? in *wcCHAT* for Chat Moderators
CHATSYS	Conference help directory	Help for /? in *wcCHAT* for Chat Sysops
CHATHLP	Conference help directory	Help for /HELP in *wcCHAT*
CHATHLPM	Conference help directory	Help for /HELP in *wcCHAT* for Chat Moderators
CHATHLPS	Conference help directory	Help for /HELP in *wcCHAT* for Chat Sysops
EDITMSG	Conference help directory	Help for line oriented message editor.
EVENTS	Conference help directory	Help for event management Sysop functions.
FDISP	Conference help directory	Help for file display mode in Your Settings.
FILES	Conference help directory	Help for file menu
FMAINT	Conference help directory	Help for Sysop file maintenance functions.

Filename	Location	Notes
JOINCON	Conference help directory	Help for Join Conference command.
LISTFC	Conference help directory	Help for List Files command.
LISTFP	Conference help directory	Help during file listing at the - pause - prompt.
MAIN	Conference help directory	Help for main menu
MARKED	Conference help directory	Help for Mark Files command.
MARKMSG	Conference help directory	Help for Mark message command.
MOVEHELP	Conference help directory	Help for Move command.
MSG	Conference help directory	Help for message menu.
NAMESRCH	Conference help directory	Help for name search command when entering a message
NMAIL	Conference help directory	Help for entering Fido Netmail message
PROTO	Conference help directory	Help for file transfer protocols menu command.
READMSG	Conference help directory	Help for end of message prompt.
SCANMSG	Conference help directory	Help for Scan Message command.
SELCONF	Conference help directory	Help for Update Conferences command.
SETEDIT	Conference help directory	Help for editor type in Your Settings.

Filename	Location	Notes
SYSOP	Conference help directory	Help for Sysop menu.
UMAINT	Conference help directory	Help for Sysop User Maintenance functions.
UMAINTE	Conference help directory	Help for Sysop User Maintenance Extra Info
UMAINTM	Conference help directory	Help for Sysop User Maintenance Mail program Info
UPLDFL	Conference help directory	Help for Upload File function
USERSET	Conference help directory	Help for Your Settings functions.
VISED	Conference help directory	Help for full screen editor.
WCMAIL	Conference help directory	Help for *wcMAIL* mail door.
WCMCONFI	Confrence help directory	Help from configuration menu of *wcMAIL*.
WCMCONFS	Conference help directory	Help for conference selection menu of *wcMAIL*.
WCMHELP	Conference help directory	Help from *wcMAIL* main menu.
FLISTHLP GAREAHLP FAREAHLP	Conference help directory	Help for ANSI file lister.

Menu

With *Wildcat!*'s new menu structure the format and files associated with the menus are no longer rigidly set. MSI has provided the following four sets of files as defaults, but the names and the contents may be freely changed or modified.

The use of these file names is primarily to assist Sysops upgrading from previous versions of *Wildcat!*, thus requiring a minimum of modifications. If the file names are changed then *MAKEMENU* must be used to associate the new file name with the appropriate menu.

Recall from the *MAKEWILD* discussion on security profile assignments that you may specify one of the many different menu display sets for each security profile. These different menu display sets are designated by any DOS filename character appended to the name such as FILEA.BBS. The menu file without an extra character (FILE.BBS) is only used if the appropriate extended name menu file is not found. The Sysop must make sure that appropriately named menu files contain the correct menu commands desired for the security profile assigned to that menu display set. Check the *MAKEWILD* screen for Security Profile Definition to refresh your memory as to the assignments made for each profile.

Each of the following files can have .BBS, .SCR or .RIP extensions, depending on the display type.

Filename	Location	Notes
`FILE` `FILEx`	Conference menu directory	Text file menu replacement for default File menu. "x" matches menu display set for caller's security profile. If no matching menu file is shown, FILE.BBS/SCR/RIP is displayed.
`MAIN` `MAINx`	Conference menu directory	Text file menu replacement for default Main menu. "x" matches menu display set for caller's security profile. If no matching menu file is shown, FILE.BBS/SCR/RIP is displayed.

Filename	Location	Notes
MSG MSGx	Conference menu directory	Text file menu replacement for default Message menu. "x" matches menu display set for caller's security profile. If no matching menu file is shown, FILE.BBS/SCR/RIP is displayed.
SYSOP SYSOPx	Conference menu directory	Text file menu replacement for default Sysop menu. "x" matches menu display set for caller's security profile. If no matching menu file is shown, FILE.BBS/SCR/RIP is displayed.

File Display Order

There are a number of factors that control which files are sent to a caller but the order is consistent.

Filename	Notes
NO######.BBS	Immediately after the *Wildcat!* copyright is displayed the baud rate exclusion files are displayed, if the call time and baud rate cause a restriction.
PRELOG.BBS	Immediately after the restriction file for baud rate the PRELOG file is sent. Like the baud restriction files, it should *not* contain any @ codes and in most cases should be limited to as few lines as possible.
NODE###.BBS	The node-specific display file is sent next, if it exists. It too should be as short as possible to allow all previous information to remain on screen without scrolling. Remember, no @PAUSE@ commands can be sent until we know the caller's parity, which is detected at logon.

The *wcCODE* application PRELOG.WCX is executed, if it exists in the WILDCAT directory, before the caller enters his name and password.

LOGON takes place following this point.

The *wcCODE* application LOGON.WCX is executed if it exists in the WILDCAT directory as soon as the caller has entered his name and password, followed by the batch file LOGON1. If the logon siren is set for a user it is activated on the PC speaker.

Filename	Notes
NO-###.BBS	If the caller does not have access to the node this display file is sent.
GROUP###.BBS	If the caller's name is included in a list of user names in a GROUP###.LST file, the appropriate GROUP display file is sent.
U#######.BBS	Message corresponding with callers User ID number is displayed, then deleted.

Phone and birthdate verification takes place at this point (between U####### and QUESNEW.DAT), if activated.

Filename	Notes
QUESNEW.DAT	If the caller is a new user, the new user questionnaire is displayed. This specific questionnaire *must* be located in the questionnaire path for *conference zero*. This location is mandatory since a user returns to the last conference accessed on the previous call, and this set of files needs a static location.
QUESDATE.DAT	The date-sensitive questionnaire is displayed if the caller's last call date predates the creation date of the questionnaire. This questionnaire *must* be located in the questionnaire path for *conference zero*. This location is mandatory since a user returns to the last conference accessed on the previous call, and this set of files needs a static location.
BIRTHDAY	This file is displayed if the current date is the anniversary of the caller's date of birth.
Security profile display file	The Security Profile display file is sent. This filename is set in each security profile and can be anything desired for each profile. It is displayed to everyone assigned to the security profile.
HELLO#N HELLO#	All date sensitive hello files are sent if the date of the callers last call predates the creation date of the HELLO#N file. These files are displayed in alternating order with the regular HELLO# files.

The batch file LOGON2 is executed if it exists.

Wildcat! 4 Specifications

Communications and networking

- Maximum DTE rate: 115,200
- Sysop definable connection rates
- Connectivity: Modem, LAN, X.25, DigiBoard*, FOSSIL*
  (* MultiLine Platinum only)
- LANS Supported: Novell Netware and any network that uses DOS SHARE
- Maximum recommended simultaneous connections to Single 486-33 PC using DESQview:
  1. Single Line: 1 + 1 local sysop node
  2. MultiLine 10 and 250: 4 + 1 local sysop node
  3. MultiLine Platinum: 8 + 1 local sysop node

Sysop functions

- Local sysop node in all versions (even Single Line)
- Console View Types: 25 line, 43/50 line EGA/VGA, quiet (none)
- User activity audit trails recorded in activity logs
- Status Line Styles: none, single line, two line, or full user account information
- Sysop Snoop mode message reading allows sysop to quickly read messages updating message pointers
- Wildcard user searches
- Charge user accounts by File download, Netmail Message, Subscription
- Configurable console scrollback

- All sysop maintenance functions are available from remote
- Maximum number of events: 32,760 per node
- Event types: hard, soft, flexible
- Event scheduler hourly, daily, weekly, monthly, yearly

Security

- BBS types: Open, Closed, Closed Comment, Closed Questionnaire
- Console Security Types: none, passworded console access, no console access
- Unauthorized commands, file areas, and conferences are hidden
- Maximum number of security profiles: 1,000
- Maximum Number of Security Profiles per User: 1 primary and 5 secondary
- Sysop defined default user profile
- Each security profile can have its own: menu display set, security display file, maximum logon time, daily time limit, expiration maximum up/down file ratio, maximum up/down K ratio, download warning action, maximum daily download files, maximum daily download K, upload compensation, ability to overwrite files, chat options, distributed mail, custom overrides.
- Sysop can determine which transfer protocols are available by security profile

Users

- Maximum Number of User Accounts: 2 Billion
- Maximum Password Length: 14 Characters
- Maximum User-ID length: 25 Characters
- Duplicate user names allowed

- User Information Fields for: name, company, address(2 lines), city, state, zip, voice, fax and data phone number, screen width, screen length, computer type, default editor, graphics support, date of birth, sex, language, comments (5 lines), alias, title, Novell name, file display style, active conference, help level, file transfer protocol, message read mode, first call date, expire date, memo date, date and time of last call, date and time of last new files check, total calls, total messages written, numbers of uploads, number of downloads, total KB uploaded, total KB downloaded, current daily downloads, current daily KB downloaded, time left, account balance, netmail balance, wcMAIL settings, conferences scanned, user override toggles, security profile, secondary security profiles, conference toggles.

Questionnaires

- Maximum Number of Questionnaires: unlimited
- Maximum Number of Questions per Questionnaire: 100.
- Maximum Length of Each Question: 64 KB
- Maximum Length of Each Answer: 65 characters
- RIPscrip or text interface
- Multiple questionnaires can be linked together
- Questionnaires can modify any field in user record
- Questionnaire answers are stored in ASCII file

Chat

- Sysop definable channels
- Profanity filter
- Paging with 4 line message editor
- Sysop defined action Words
- Channel specific action words

- Whisper mode
- Chat Types: Moderated/Unmoderated, Public/Private
- Ignore/Unignore mode
- Character by character private chat

Doors

- Define up to 1,000 sysop definable DOS hooks
- Both single and multi-user door programs supported
- Supported via DOOR.SYS, USERREC.BIN, SYSINFO.DAT and FILEINFO.DAT

Display

- Built-in support for RIPscrip graphical user interface
- Auto-detect of RIP and ANSI at connection time
- WYSIWYG ANSI screen editor included
- User selected graphics modes

Menus

- Fully customizable menu structures
- Maximum number of menus: 650
- Maximum number of options per menu: 40
- Support for stacked menu commands
- Menu Options can display a text file, select another menu, call built-in, global or wcCODE functions.
- Ability to define any built-in or global option to any menu
- Each menu can have its own RIP, ANSI, ASCII or dynamically generated display screen.

- 3 modes of menu operation: novice, regular and expert

Languages

- User selectable language at login or stored in user record

Conferences

- Each conference can have it own bulletins, menus, questionnaires, display screens, help files, and attachment areas
- Conferences can be defined as Read Only, Write Only, Join Only or any combination of the three

Bulletins

- Bulletins can be downloaded from bulletin menu or added to the file queue

Messages

- Maximum Number of Message Conferences: 32,760
- Maximum Number of Messages per Conference: 65,520
- Automatically maintain messages by date or total number using wcPACK
- Maximum To/From User Field: 70 characters
- Maximum Subject Field: 70 characters
- Maximum Message Length: 64 KB
- Maximum Number of Sysop-defined Distribution Lists: 1,000
- Integrated QWK mail interface (wcMAIL)
- Message conference types include Normal messages, public and private; Normal messages, public only; Normal messages, private only; Fido Netmail messages, private only; Internet E-Mail, private only; Usenet Newsgroup, public to ALL

- 3 modes of message display: scroll, clear screen, and keep header
- User selected message edit modes
- Full screen editor for ANSI users with automatic word wrap and spell checker
- User name search when addressing messages
- Message forwarding, carbon copies, return receipts, file attachments, quoting
- Subject threading
- Searches based on sender, receiver, subject, message text, message number, and conference.
- Upload text into message using any file transfer protocol
- Message attachments can be added to download queue
- Prompt to delete message attachments
- Originate new messages from Read mode

File

- Maximum Number of File Areas: 32,760
- File areas can be defined as list only, upload only, download only or any combination of the three
- Maximum Number of Files per Area: 2 billion
- Multi-changer CD-ROM support
- Maximum Length of File Descriptions: 70 Characters standard, 15 lines by 72 characters extended.
- Option for indexing extended descriptions
- Password protected files with hide option
- Duplicate file names

- Built-in support for FILE_ID.DIZ and DESC.SDI
- Upload/Download Transfer Protocols: Zmodem, Ymodem-G, Ymodem, Xmodem-1K/G, Xmodem-1K, Xmodem/CRC, Xmodem, Kermit, ASCII, plus up to 10 Sysop-defined external protocols
- GIF file thumbnail previewer
- User-specified default transfer protocols
- File list marking
- File list format options for single, double or extended views
- Searches by keyword, text in description, date, uploader with AND/OR logic
- Transfer prompting at logoff if files are still in download queue.
- Auto-logoff option after transfer
- Option for leaving message to file uploader
- Option for running virus scanner after upload

Appendix

By necessity, by proclivity, and by delight, we all quote.

Ralph Waldo Emerson

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Auto-Update Plan

The Auto-Update Plan guarantees that you will stay up to date with all the *Wildcat! minor* releases.

It is designed to provide IMMEDIATE MINOR UPDATES to *Wildcat!* with no effort on your part. Never get behind!

As a subscriber to the Auto-Update Plan you will automatically receive every *minor* update to *Wildcat!*, *wcPRO*, *wcGATE* and *wcCODE* that you have kept up to date for your copy of *Wildcat!*. AUP subscribers receive their updates even before they become available for ordering by other MSI customers.

What it Includes

Minor updates covered under this plan are those falling within a major version number. Updates numbered 3.01, 3.5, , 3.6 and 3.9 were all minor updates to the major release Version 3. By contrast, the release of Version 4 was *not* covered under the Auto-Update Plan since it was a major update. Subsequent releases of 4.1, 4.2, 4.5, etc. are covered under the plan, as long as the subscriber is current to the most recent major release.

Only $50 per year.

Wildcat! STUFF!!

How big a fan are you? Do you operate the BBS at work and go home and forget about computers completely, or did you really ***Catch the CAT?*** If you want to tell the world then get our 100% cotton T-shirt with flashy *Wildcat!* BBS graphics.

Call for sizes and stock information; $15.

Other *Wildcat!* promotional item may become available from time-to-time. We're considering coffee mugs, calendars, pens, license plate frames, and posters. Inquire about additional items when ordering.

wcPRO Utilities (with *wcFAX*)

wcPRO is the professional system operator's secret weapon, offering FAX-on-demand, extended database processing and statistics capabilities to further enhance *Wildcat!* 4's already powerful range of functions.

wcPRO General Information

The *wcPRO* Utilities give you more flexible access to the *Wildcat!* 4 user, file, and message databases. You can set match criteria based on content of any combination of fields in the databases, and you can save frequently used match setups to disk for easy access and batch processing. Browsing, listing, deleting, and changing functions all respect the currently loaded match criteria.

User Database Functions:

- browse user database sorted by Name, Name & User ID, Security Profile, Expire Date, or Alias
- edit any field in any user record
- relational hooks to message databases allow you to write a message to user while browsing user database
- list users to screen or file in comma delimited, fixed length, .DBF (dBase), or mailing label formats based on the currently loaded match criteria (for instance, print mailing labels to send information to all users whose first call was in the last 7 days)
- globally change any field in the user database based on the currently loaded match criteria (for instance, add a comment to all users' records who have written more than 50 messages)
- delete users based on the currently loaded match criteria (for instance, delete users who have not called in more than 90 days)

File Database Functions

- browse file database sorted by Filename, File Area, File Date, or Uploader
- edit any field in any file record
- view any file or archive while browsing database (Sysop can configure external file viewers and editors based on the extension of file)
- relational hooks to user and message databases while browsing file database records allow you to jump directly to user database entry of person who uploaded file or write messages directly to uploader
- list files to screen or file in single line, double line, full, or .DBF (dBase) formats based on the currently loaded match criteria (for instance, create a list of all the files available for download from your BBS)
- globally change any field in the file database based on the currently loaded match criteria (for instance, freshen the date and time fields of the file database entries to match the actual date and time of the file on disk)
- delete files from the database and/or disk based on the currently loaded match criteria (for instance, delete all files from the database from an old CD-ROM disk you no longer offer to your users)
- report files without database entries and files in the wrong directory based on the currently loaded match criteria

Message Database Functions

- browse message databases sorted in forward or reverse order
- edit any field in the message header and/or message text
- copy or move messages to any other conference while browsing

- relational hooks to user database allows you to jump directly to user database entry of sender or recipient of message while browsing messages
- list messages to file in single line, header only, or full text formats based on the currently loaded match criteria (for instance, export all the messages written by a certain user to a text file)
- delete messages based on the currently loaded match criteria (for instance, delete all private e-mail messages more than 7 days old which are marked as received)

Questionnaire Reporting Functions

- create statistics reports and graphs for multiple choice questions
- process questionnaire answer data file into comma delimited, fixed length, or .DBF (dBase) formats
- can be configured to maintain history files to track questionnaire statistics over long periods while still allowing frequent processing of the data files
- can be configured to delete the raw data files when done processing them
- reports can be ASCII text, color coded .BBS files, and .RIP graphics files

Statistics Reporting Functions

- can create the following tables: general statistics, average user, bulletin statistics, message statistics, questionnaire statistics, door statistics, area code statistics, top file downloads, top downloaders, top uploaders, and node efficiency
- can create graphs based on baud rates, download protocols, upload protocols, logoffs, calls by day, and calls by hour
- all of the reports can be based on any combination of nodes, file areas, and conferences

- can be configured to maintain history files to track statistics over long periods while still allowing frequent processing of the activity logs
- can be configured to delete the activity logs when done processing
- reports can be ASCII text, color coded .BBS files, and .RIP graphics files

Batch Processing Functions

- list, change, or delete users based on match files
- list, change, or delete files based on match files
- create reports of missing and unlisted files
- list or delete messages based on match files
- process questionnaires based on saved configuration settings
- process statistics based on saved configuration settings

wcFAX - FAX-on-demand for *Wildcat!* 4

System Requirements:

- *Wildcat!* 4 BBS (any version)
- Class 1 or Class 2 FAX modem connected to a standard (UART) serial interface (user interface works with any serial interface supported by *Wildcat!* 4)

Features:

- full-screen menu driven configuration program
- up to 32000 different documents with up to 10 files per document
- documents can be ASCII text, .PCX graphics, or a combination of the two
- Sysop configurable cover sheet
- access to individual documents determined by caller's security profile

- users can mark and queue up FAX documents in the same way as marking and queuing up files for download
- FAX server can run as an additional DESQview or network task, as a postcall event, or as a timed *Wildcat!* event
- Sysop configurable dialing prefix and suffix based on local, metro, regional, long distance, and overseas phone numbers
- FAX requests to phone numbers configured as toll calls may be scheduled for times and/or days when rates are lower
- Sysop can configure cost for each individual document and have *wcFAX* automatically deduct the assigned number of units from the user's account balance
- FAX server will try up to 3 times to get the FAX through (up to 5 times if the line is busy), but aborts immediately if a VOICE answer is received
- support for RIP terminal emulation for point and click queueing of documents
- color .PCX files are converted automatically to dithered black and white images when the document is rasterized prior to sending
- user can enter FAX number of their choice (*wcFAX* automatically loads the user's FAX number from the *Wildcat!* 4 user database) based on their security profile
- Sysop can configure a list of bad phone numbers which *wcFAX* will not allow users to send to (for instance, 911, local time/temperature)
- users (based on their security profile) may change the To: field name when requesting Faxes
- Faxes are rasterized in normal or fine mode based on the user's security profile

wcGATE - Messaging Gateway for *Wildcat!* 4

wcGATE gives you the capability to connect your *Wildcat!* 4 BBS to the world's largest network of computers — the Internet, as well as gate messages to and from your Novell MHS server. Your callers will be able to send and receive Internet or MHS E-Mail, as well as read and post articles in Usenet Newsgroups.

System Requirements:

- *Wildcat!* 4 BBS
- MHS gateway requires Novell's MHS server v1.5 (Global MHS not recommended)
- Internet gateway requires a UUCP account with an Internet provider (lists of commercial Internet providers are available on the MSI HQ BBS)

Internet Features:

- import and export Internet E-Mail
- import and export Usenet Newsgroups
- uuencoded files arriving at your site are automatically uudecoded and transformed into message file attachments
- files attached to outgoing messages are automatically converted to uuencoded messages
- built-in support for both 12 bit and 16 bit Unix Compress and Decompress archiving methods
- up to 2 billion user name translations per host may be configured
- support for up to 65000 direct downlinks and 65000 hosts
- configurable "smart host" routing tables for each downlink
- route mailing lists to public conferences so more than one user can participate in each list

- support for moderated newsgroups
- support for Pagesat and Planet Connect satellite Internet connection
- creates bounce messages automatically if mail arrives at your system and the user does not exist in your user database
- full Internet DNS addressing support
- *Wildcat!* 4 user names are automatically parsed into valid DNS addresses without having to set up translation tables

MHS Features:

- route E-Mail to any MHS compatible product via a Novell MHS server
- supports attaching files to messages
- Echomail support via MHS transport - echo message conferences with other MHS capable *Wildcat!* 4 BBSs

wcCODE - Development Engine for *Wildcat!* 4

wcCODE is a powerful development tool for customizing your *Wildcat!* 4 BBS. The *wcCODE* programming language is modeled after the BASIC programming language and it includes *wcIDE*, a full-screen integrated development environment with robust editor and on-line context sensitive help system.

The compiled programs developed with *wcCODE* may be run on any *Wildcat!* 4 BBS, regardless of whether that system has the *wcCODE* compiler. *wcCODE* developers need not distribute the uncompiled source code for their programs. This feature makes *wcCODE* an ideal development language for third party applications. No royalties to Mustang Software (other than the initial licensing fee) are required for applications developed with *wcCODE*.

wcIDE - Integrated Development Environment for *wcCODE*

- full-screen editor
- pull down menus
- full mouse support
- clipboard support
- open multiple files for editing
- compile programs directly from within *wcIDE* via function key
- search, search and replace, and search again functions
- resize, tile and cascade windows at will

wcCODE Programming Language

- structured procedural language similar to BASIC
- open files for input, output, append, binary, and random
- built-in indexing functions

- built-in sorting functions
- data types include: string, byte, integer, long, real
- support for user-defined data types (records)
- floating point math functions
- pre-defined *Wildcat!* 4 specific data types including: ModemProfileRecord, MakewildRecord, MasterRecord, NodeInfoRecord, ConfRecord, UserRecord, SecurityProfile, MessageHeader, and FileRecord
- more than 180 built in functions (standard BASIC functions plus all of the *Wildcat!* 4 menu functions and additional functions applicable to the *Wildcat!* 4 environment)
- built-in support for all RIPscrip v1.54 functions
- support for masked input fields
- built-in file sharing for use on multi-user systems

An example *wcCODE* program which can be used to replace the List Users function in *Wildcat!* 4:

```
' USERLIST.WCC - List users on the BBS
'
' This program shows how you might present the user list from a wcCODE program.
' With wcCODE you can easily change the type of information displayed for most any
' of Wildcat! 4's built menu functions.
'
print
print "@0F@     Name        Computer Type  Last Called     From"
print "@0E@------------------------ --------------- -------------- ------------------"
dim u as UserRecord
u.name = ""
do while GetNextUser(u) and not DisplayStopped
 print "@0F@"; pad(u.Name, 27);
 print "@0E@"; pad(u.ComputerType, 17);
 print "@0B@"; pad(u.LastCall.D.Format(Makewild.DateFormat), 16);
 print "@0F@"; left(u.From, 19)
loop
waitenter
```

Off-Line Xpress for Windows

NEW! Windows version. QWK-compatible mail packet reader for Tomcat, QMail, and more. Reading mail from BBSs has never been easier. OLX can read packets generated by any .QWK compatible mail door used by most BBS, and generates reply packets in the .QWK format which can be uploaded back to the originating BBS. DOS version also available.

A Test Drive version of Off-Line Xpress is available for download from MSI HQ! BBS at 805-873-2400. The Test Drive version may be freely distributed.

Call our sales hotline at 1-800-999-9619 to order.

QmodemPro for DOS

QmodemPro for DOS is a full-featured telecommunications software package with E-mail support. Package includes fifteen popular terminal emulations including Remote Imaging Protocol (RIP), fax send with Class 1or 2 fax modems, full mouse support, script language with auto-learn, 10 transfer protocols including Zmodem, Kermit and CompuServe B+, 4096 entry dialing directory with group dialing, LAN modem support, and setups for 170 popular modems. E-mail utilities include *qmGATE* for download, reply, and upload of E-mail and Forum mail from CompuServe and MCI, and Off-Line Xpress (OLX) mail reader.

QmodemPro for Windows

Now the power and flexibility of QModem is available for Windows. QmodemPro for Windows allows you to transfer data plus send faxes directly from your Windows word processor. Package includes send and receive fax (Class 1 or 2), GIF/BMP file viewer, over thirty terminal emulations including Remote Imaging Protocol (RIP), multi-media sound file support, compiled script language (SLIQ), Windows tool bar, programmable macro keys, transfer protocols including Zmodem, Kermit and CompuServe B+, dialing directory icons, LAN modem support (NCSI/NASI/INT14) with appropriate Windows drivers, and setups for 170+ popular modems.

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